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DEVELOPMENT AND INTERNATIONAL ECONOMIC COOPERATION: DESERTIFICATION AND DROUGHT

Combating aridity, soil erosion, salinity, waterlogging, desertification and the effects of drought in South Asia

Report of the Secretary-General

CONTENTS

	Paragraphs	Page
INTRODUCTION	1 - 4	2
I. TYPES OF LAND DEGRADATION AND SOURCES OF INFORMATION	5 - 11	3
II. STATUS OF LAND DEGRADATION	12 - 22	4
III. CAUSES OF DEGRADATION	23 - 29	6
IV. ECONOMIC AND SOCIAL CONSEQUENCES OF DEGRADATION	30 - 38	7
V. INSTITUTIONS AND PROGRAMMES TO COMBAT DEGRADATION	39 - 43	11
VI. PROPOSALS FOR ACTION	44 - 52	12
SELECTED REFERENCES		15
Annexes		
I. TABLES		19
II. MAPS		27

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INTRODUCTION

Origin and objectives

1. The present report has been prepared in response to Economic and Social Council resolution 1991/97, in which the Secretary-General was requested to undertake a study to assess the extent of the problem of land degradation and its effects on the peoples of the region and to provide a framework for national and international cooperative efforts to tackle this problem in its physical and human dimensions. The work was carried out by means of a project undertaken jointly by the Food and Agriculture Organization of the United Nations (FAO), the United Nations Environment Programme (UNEP) and the United Nations Development Programme (UNDP).

2. The immediate objective of the project was to undertake a comprehensive study on land degradation in South Asia and its effects upon the people. Its specific objectives indicate the matters covered in this report:*

(a) Status of land degradation: types of degradation, their nature, severity and extent;

(b) Causes and consequences of land degradation;

(c) Institutions to combat land degradation;

(d) Proposals for strengthening efforts to combat land degradation.

The South Asia region

3. The South Asia region, as covered in this report, comprises eight countries. For purposes of regional comparison they are grouped into two zones, with India divided into a dry western region and a humid region (see annex II, map 1).

Dry zone	Humid zone
Afghanistan	Bangladesh
India (dry region)	Bhutan
Islamic Republic of Iran	India (humid region)
Pakistan	Nepal
	Sri Lanka

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* A lengthier and more comprehensive report on the project, including more detailed estimates and methods of calculation, is being prepared by FAO.

4. The region has a land area of 641 million hectares (M ha) and a population (1990) of 1,200 million. The agricultural population is 768 million, 61 per cent of the total. The area of cropland is 227 M ha, of pasture 94 M ha, and thus of cropland and pasture together, termed agricultural land, 321 M ha. These statistics indicate two basic characteristics of the region, which are fundamental to the problems being considered:

(a) High density of population in relation to land resources: over 22 per cent of the world's agricultural population live on just under 5 per cent of its land area;

(b) High density of agriculture in relation to land resources: almost all land capable of sustainable agricultural use is already being farmed.

I. TYPES OF LAND DEGRADATION AND SOURCES OF INFORMATION

Definitions

5. The term land refers not just to soil but to all natural resources which contribute to agricultural production. Land degradation is the temporary or permanent lowering of the productive capacity of land. Three degrees of severity of degradation are recognized:

Light: somewhat reduced agricultural productivity;
Moderate: greatly reduced agricultural productivity;
Strong: not capable of agricultural production and unreclaimable at farm level.

6. Desertification is defined by UNEP as land degradation in arid, semi-arid and dry subhumid areas resulting from adverse human impact. In this report, therefore, it is equivalent to land degradation in the dry zone.

Types of land degradation

7. The following types of land degradation are assessed in this report:

(a) Water erosion;

(b) Wind erosion;

(c) Soil fertility decline;

(d) Waterlogging;

(e) Salinization;

(f) Lowering of the water table.

Three other types are considered in more generalized terms:

(g) Deforestation (covered by reference to FAO data);

(h) Forest degradation;

(i) Rangeland degradation.

8. Soil pollution, urban encroachment onto agricultural land and the potential effects of global climatic change, while well recognized as actual or potential problems, have not been assessed in this study.

Reversible degradation and land reclamation

9. The effects of water and wind erosion are largely irreversible. Although plant nutrients and soil organic matter may be restored, to replace the actual loss of soil material would require taking the soil out of use for many thousands of years, an impractical course of action.

10. In some cases, however, land degradation is reversible: soils with reduced organic matter can be restored by additions of plant residues; degraded pastures may recover under improved range management; and salinized soils can be restored to productive use through salinity control and reclamation projects, although at a high cost. But the cost of reclamation or restoration to productive use of degraded soils is normally much higher than the cost of preventing degradation before it has occurred.

Sources of information

11. The major source of data employed for this report is the Global assessment of soil degradation (GLASOD). Other sources are material assembled by the Asian Problem Soils Network and estimates by individual countries. GLASOD estimates provided the primary sources, modified where the balance of evidence suggested a need to do so. For deforestation, data are taken from the FAO Forest resources assessment 1990 project. However, available data on the extent and severity of degradation are highly variable. Reasons are first, a failure to define in sufficiently precise terms what is meant by the various degrees of severity of degradation; and second, the absence of reliable surveys over large areas.

II. STATUS OF LAND DEGRADATION

12. Best estimates have been made of the types, severity and extent of land degradation. Detailed results are given in tables 4 and 5 (see annex I) and maps 2-5 (see annex II). Summary data combining the degrees of severity and totals for the dry zone, the humid zone and the South Asian region as a whole, are shown in table 1 (see annex I).

13. Water erosion is the most widespread form of degradation in the region, affecting some 25 per cent of agricultural land. It is found widely in both the dry and humid zones. In many areas of sloping land, for example in Nepal, it has reached severe proportions, causing or threatening the permanent loss of the productive capacity of land.

14. Wind erosion is estimated to affect close to 40 per cent of agricultural land in the dry zone, although quantitative evidence for the definition of its degrees of severity is lacking.

15. Soil fertility decline, formerly not as widely recognized as other types of degradation, is a substantial and widespread problem in the region. It occurs through a combination of the lowering of soil organic matter and loss of plant nutrients. Evidence for fertility decline includes data on:

(a) Soil organic matter depletion;

(b) Negative soil nutrient balance;

(c) Imbalance in fertilizer application;

(d) Secondary and micronutrient deficiencies;

(e) Failure of increases in fertilizer use to be matched by increases in crop yield;

(f) Declining responses to fertilizers.

16. Waterlogging affects some irrigated lands in the alluvial plains and interior basins. While less extensive than other types of degradation on a regional scale, it is severe in some areas.

17. Salinization (including sodication) is a severe problem for irrigated lands in the dry zone. it is found both in light to moderate degrees, reducing crop yield, and in the severe degree, causing complete abandonment of formerly productive irrigated land. Salinization through intrusion of salt water is also found in coastal areas.

18. Lowering of the water table has occurred in certain irrigated areas where the groundwater remains non-saline. Although waterlogging, salinization and lowering of the water table are of smaller extent than other types of degradation, their consequences are disproportionately greater, since they mainly affect irrigated lands which are potentially the most productive.

19. A summary of the severity of land degradation with respect to the countries of the region, including the six types mentioned above, together with deforestation and rangeland degradation, is provided in table 2 (see annex I; for further details, see also tables 4 and 5 in annex I and maps 2-5 in annex II).

20. The countries in the dry zone - Afghanistan, Islamic Republic of Iran, Pakistan and the western part of India - are severely affected by water and wind erosion, soil fertility decline, deforestation and rangeland degradation. Their alluvial plain and basin areas are affected by waterlogging, salinization and lowering of the water table.

21. Four of the five countries in the humid zone - Bangladesh, Nepal, Sri Lanka and the greater part of India - are severely affected by water erosion on their rainfed lands, soil fertility decline and deforestation. in parts of the hill and mountain areas of Nepal, deforestation and water erosion have reached an extreme degree. The fifth country, Bhutan, because of its lower population density, has not yet suffered severe land degradation but deforestation, often the first step leading towards degradation, is taking place.

22. Soil fertility decline has not previously received sufficient attention. On a national scale, increases in crop yields are falling behind rates of increase in fertilizer use. Surveys have shown that soil organic matter levels are falling. Micronutrient deficiencies are being widely reported where farmers have attempted to sustain yields by application of major nutrients only. In long-term experiments, yield responses are declining except where fertilizer is applied in conjunction with organic manure. This form of degradation is found in both the humid and dry zones. While its widespread occurrence is not in doubt, quantitative estimates of its extent and severity will require further surveys and monitoring of soil changes.

III. CAUSES OF DEGRADATION

Natural hazards, direct causes and underlying causes

23. Land degradation results from natural degradation hazards, direct causes and underlying causes.

24. Natural degradation hazards are conditions of the natural environment which lead to high susceptibility to degradation, such as steep slopes, rains of high intensity, strong leaching in humid regions and drought in dry regions.

25. Direct causes of degradation are unsuitable land use and inappropriate land management practices. These vary with the type of degradation and include:

(a) Deforestation of fragile land unsuitable for sustained agricultural use;

(b) Overcutting of vegetation (very widespread);

(c) Shifting cultivation without adequate fallow periods;

(d) Overgrazing;

(e) Non-adoption of soil conservation management practices;

(f) Extension of cultivation onto lands of low potential or high natural hazards;

(g) Improper crop rotations;

(h) Plant nutrient deficits in soils, with negative nutrient budgets over many years;

(i) Unbalanced fertilizer use;

(j) Problems arising from the planning, construction and management of irrigation systems;

(k) Overpumping of groundwater in excess of capacity for recharge.

26. Underlying causes of degradation are the basic reasons which give rise to the direct causes. These are:

(a) Land shortage;

(b) Problems of land tenure; short-term or insecure tenancy, open-access resources;

(c) Economic pressures;

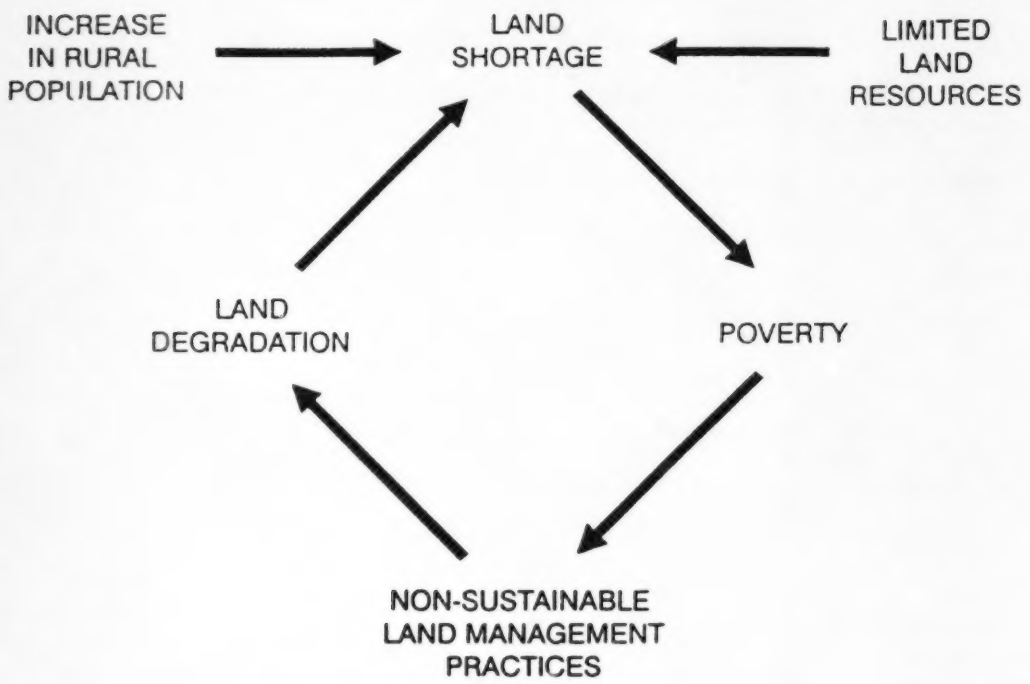
(d) Poverty;

(e) Population increase.

Causal nexus between land, population, poverty and degradation

27. The direct and indirect causes of land degradation are linked by a causal nexus (see the figure). The two external, or driving, forces are limited land resources and increase in rural population. These combine to produce land shortage, resulting in small farms, low production per person and increasing landlessness. A consequence of land shortage is poverty. Land shortage and poverty, taken together, lead to non-sustainable land management practices, the direct causes of land degradation. This has the effect of increasing land shortage, a vicious circle of cause and effect. It is population growth working in conjunction with other factors that is bringing about widespread environmental deterioration (see FAO/RAPA, 1990). Environmental degradation perpetuates poverty, as the poorest attempt to survive on a diminishing resource base (see FAO, 1991).

Causal nexus between land, population, poverty and degradation



28. There are two ways to intervene in this nexus: improved technology and reduction of population increase. Increased efforts should certainly be made in research into improved technologies, especially their more widespread implementation. However, it must be emphasized that all efforts at improved technology will be nullified and in places reversed unless they are accompanied by a reduction in the rate of growth of population.

29. For this to occur, new attitudes are required. There is growing recognition of the need to link population policy with development. Population issues currently encompass areas of concern such as poverty alleviation, environmental degradation ... which are much broader than population size and growth alone (see ESCAP, 1991). Few institutions have developed a response strategy to the implications of population pressure on natural resource management (see Asian Development Bank, 1991). The close link between poverty and environmental problems makes a compelling case of increasing assistance to reduce poverty and slow population growth (see World Bank, 1992). A much greater integration between population policy, agriculture and land resource management is needed.

IV. ECONOMIC AND SOCIAL CONSEQUENCES OF DEGRADATION

The economic cost of degradation

30. An attempt has been made to estimate the economic cost of land degradation. Many of the critical assumptions are based on tentative data, particularly the relative production loss resulting from different degrees of degradation. The results are therefore provisional, and refer to orders of magnitude of the macroeconomic effects.

31. The estimates are based primarily on the measurement of two variables: production loss and replacement cost. Production loss is the reduced productivity of the soil as a consequence of degradation, expressed as a percentage of production from the undegraded soil. For erosion and soil fertility decline, the assumptions are a 5-10 per cent production loss for a light degree of degradation, 20 per cent for moderate and 75 per cent for strong degradation; for salinity, the respective losses assumed, based on experimental data, are 15, 65 and 100 per cent respectively. Replacement cost is the cost of additional inputs (primarily fertilizer) used by farmers in order to maintain production levels on degraded soils. Price assumptions are US$ 200 per tonne for cereals and US$ 300 per tonne of fertilizer nutrients.

32. Summing the estimates for the direct on-site costs of land degradation shown in table 3 (see annex I) gives a total of US$ 9.8-11.0 billion per year. Thus, in round figures, the cumulative effect of human-induced land degradation is estimated to cost countries of the region a sum on the order of US$ 10 billion per year. The on-site cost is equivalent to 2 per cent of the gross domestic product of the region, or 7 per cent of its agricultural gross domestic product. The inclusion of off-site effects of water erosion would substantially increase this value.

Discussion

33. A contrary view exists, which states that estimates of the extent of land degradation, or of its effects on production, may be considerably exaggerated; unless and until there is a better foundation of evidence, the problem does not meet the criteria for development investment. This view serves one important purpose: it emphasizes that there are large uncertainties in estimates of the extent of degradation and its effects.

34. However, although some of the estimates are indeed based on questionable foundations, reports from all countries of the region affirm the certain existence of two kinds of degradation:

(a) Severe degradation over substantial identifiable areas (for example, gullying, total removal of topsoil by sheet erosion and complete salinization);

(b) Light to moderate degradation over extensive areas (for example, soil fertility decline on arable land and degradation of vegetation on rangelands).

35. It is therefore concluded that, although more precise data should be obtained, the evidence available is sufficient to call for immediate action in order to prevent further land degradation and reverse the effects of past degradation where possible.

Effects on the people

36. The effects of land degradation may be grouped as effects on production and consequences for the people. The effects on production and production factors are:

(a) Abandonment of land, where degradation has reached a severe degree;

(b) Reduced drop yields;

(c) Increased inputs and greater costs where farmers, out of necessity, attempt to combat reduction in yields with increased inputs, primarily of fertilizers;

(d) Reduced responses to inputs;

(e) Reduced productivity of irrigated land, thereby leading to less efficient use of the high inputs which have gone into development of irrigation;

(f) Lower flexibility of land management;

(g) Greater risk;

(h) Loss of water for irrigation;

(i) Diversion of labour, technical and financial resources to reclamation.

37. The consequences for the people are:

(a) Increased landlessness;

(b) Reduced and less reliable food supplies;

(c) Increased labour requirements;

(d) Lower incomes.

38. Land degradation has its most serious effects on the poor. Poor farmers, primarily those with small landholdings, have neither the resources to combat land degradation nor the options to meet short-term disasters, such as flood, drought or attack by pests. It is the poor who, by force of circumstance, suffer most from the nexus of land, population, poverty and degradation.

V. INSTITUTIONS AND PROGRAMMES TO COMBAT DEGRADATION

Institutional structures

39. Institutional structures to combat land degradation may be grouped into institutions responsible for strategy and policy, research and implementation. Bangladesh, India, and Pakistan possess large and complex institutional structures for these purposes. Other countries in the region have structures that are smaller but still (with the exception of Bhutan) moderately complex. The operation of institutions in Afghanistan is seriously hindered by current political conditions.

40. While most institutional questions are specific to countries, two features are commonly found:

(a) There is a tendency towards unduly complex structures, with overlapping responsibilities;

(b) Research and planning are often more advanced than implementation in the field.

41. The subject of land resources should become recognized as a major division of environmental affairs. Land resources cover the sustainable use of the resources of climate, water, soils, landforms and vegetation, combining productive use with conservation. Countries should seek to clarify institutional responsibilities in the area of land resources.

Regional collaborative programmes

42. The fight against land degradation has received support from the following regional collaborative programmes:

(a) Asian network on problem soils;

(b) Desertification Control Research and Training Network for Asia and the Pacific (DESCONAP);

(c) Fertilizer and development network for Asia and the Pacific (FADINAP);

(d) Forestry research support programme for Asia and the Pacific (FORSPA);

(e) Asian bio- and organic fertilizer network. These networks continue to play an important role in the exchange of scientific information and formulation of policy and programmes.

Environmental legislation

43. It is recognized that improvements in environmental legislation have a role to play in combating land degradation. It has not been possible, however, to include a review of such legislation in this study.

VI. PROPOSALS FOR ACTION

44. If integrated action is not taken to combat both the direct and the indirect causes of land degradation:

(a) Resources will be destroyed, in some cases irreversibly;

(b) There will be further considerable economic losses at the national level;

(c) The people, particularly the poor, will suffer.

A prerequisite for effective action is the recognition, by national Governments, of the severity of land degradation and its effects on the people. It is not sufficient to merely discuss the environment and write reports. There must be allocation of staff, budget and resources.

45. Seven proposals follow for action to strengthen efforts to combat land degradation. They are confined to the main lines of approach and action. Many of the proposed actions will initially require discussion on a regional and in some cases global basis, in order to secure uniformity of methods. They will subsequently require modifications in detail to meet the circumstances of different countries.

1. Practical definitions of degrees of severity of land degradation

46. These must be in terms that allow practical means of observation, monitoring and mapping. This action would be best taken at the international level, in order to achieve comparability of information world wide.

2. Establishment of a regional programme and guidelines for the assessment of land degradation

47. This should include:

(a) Survey of the present state of degradation;

(b) Monitoring of changes in soils, water and vegetation and establishment of benchmarks of progress/deterioration.

3. Study of the economic and social effects on the people

48. Such work should be conducted in parallel with physical surveys, with cooperation in the field between land resource scientists and social scientists.

4. Translation of regional guidelines into national programmes

49. Matters that should be covered are:

(a) Clarify institutional responsibilities. It may be necessary to establish high-level advisory committees on land degradation control policy;

(b) Identify nodal institutions for land degradation control;

(c) Identify priorities with respect to types of degradation and critical areas;

(d) Plan and carry out national programmes.

5. Research into measures to combat degradation

50. Practical field implementation should be continuously supported by research. Matters which require particular attention include:

(a) Practical methods of improving and maintaining soil organic matter status;

(b) Ways of securing the participation of the people in implementing improved land management (for example, soil conservation measures which provide intrinsic incentives for land users);

(c) Research into the underlying causes of degradation, as well as the integration of land resource management with wider aspects of population policy.

6. Implementation of measures to combat the direct causes of degradation

51. Much activity of this nature is already being undertaken but the scale of activity should be expanded. Increased funding will be required. Measures of this type include:

(a) Watershed management and soil conservation projects and extension work;

(b) Methods for improving soil organic matter status;

(c) Application of integrated plant nutrition systems;

(d) Salinity control and reclamation projects;

(e) Reafforestation;

(f) Further development of agro-forestry, including applications for soil conservation;

(g) Control of desertification; including sand-dune fixation and improved range-land management.

7. Action directed towards removing the underlying causes of degradation, including integration of land management measures with population policy

52. Attempts to combat land degradation directly, by conservation measures or land reclamation, can have only short-term effects unless they are accompanied by efforts to tackle the underlying causes. These lie in the causal nexus between population increase, limited land resources, land shortage, poverty, non-sustainable land management practices and land degradation. In the prevailing situation, in which there is no spare land available, population increases of 2-3 per cent per year will largely or entirely counteract the effects of measures for improvement. Population is a sensitive issue, but all Governments of the region are aware of the problems caused by continued increase at present rates. In the context of land degradation, a much greater integration between population policy, agriculture and land resource management is needed. For this to occur, new attitudes will be required: due recognition of land holders' rights to the resources; external (global) trade and subsidy policies on commodities and inputs (with reference to the Uruguay Round); and the recognition and standardization of a price valuation for environmental assets (land, water etc.) in economic and financial feasibility calculations.

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Note: RAPA = Regional Office for Asia and the Pacific (FAO)

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Annex I

TABLES

Table 1. Percentage of agricultural land affected by degradation: summary

Type of land degradation	Dry zone	Humid zone	Region
Water erosion	32	20	25
Wind erosion	39	0	18
Soil fertility decline	5	20	13
Waterlogging	4	0	2
Salinization	19	<1	9
Lowering of the water table	13	0	6

Table 2. Severity of land degradation in countries of the region

	Afghanistan	Bangladesh	Bhutan	India		Islamic Republic of Iran	Nepal	Pakistan	Sri Lanka
				Dry region	Humid region				
Water erosion	XX	X	..	XX	XX	XX	XX	XX	XX
Wind erosion	X	..	..	XX	..	XX	..	XX	..
Soil fertility decline	..	XX	..	..	XX	..	..	XX	XX
Waterlogging	..	..	..	XX	..	X	..	X	..
Salinization	X	..	..	XX	..	XX	..	XX	..
Lowering of the water table	..	..	..	X	..	XX	..	..	..
Deforestation	XX	XX	X	X	X	X	XX	XX	X
Rangeland degradation	XX	..	..	XX	..	XX	..	XX	..

X = Moderately severe.

XX = Very severe.

Table 3. Provisional estimates of the cost of land degradation to the region

(Billions of United States dollars)

Type of degradation	Cost	Notes
Water erosion	5.4	On-site effects only
Wind erosion	1.8	Assessed relative to water erosion
Fertility decline	0.6-1.2	Tentative estimate
Waterlogging	0.5	
Salinization	1.5	
Lowering of water table		Not assessed

Table 4. Best estimates of areas affected by land degradation

	Light	Moderate	Strong	Total	Total as percentage of agricultural land
	(Millions of hectares)				
Water erosion					
Afghanistan	8.6	2.6	0.0	11.2	29
Bangladesh	0.0	1.5	0.0	1.5	15
Bhutan	<0.1	0.0	<0.1	<0.1	10
India a/	2.9	17.2	12.6	32.8	18
Islamic Republic of Iran	14.5	11.9	0.0	26.4	45
Nepal	0.5	1.1	0.0	1.6	34
Pakistan	6.1	1.1	0.0	7.2	28
Sri Lanka	0.1	0.2	0.8	1.1	46
India, dry region a/	1.2	0.0	1.7	2.9	-
India, humid region a/	1.8	17.2	10.9	29.9	-
Region	32.7	35.6	13.5	81.7	25
Wind erosion					
Afghanistan	1.9	0.0	0.2	2.1	5
Bangladesh	0.0	0.0	0.0	0.0	0
Bhutan	0.0	0.0	0.0	0.0	0
India a/	0.0	1.8	9.0	10.8	6
Islamic Republic of Iran	6.6	25.7	3.1	35.4	60
Nepal	0.0	0.0	0.0	0.0	0
Pakistan	4.0	6.7	0.0	10.7	42
Sri Lanka	0.0	0.0	0.0	0.0	0
India, dry region a/	0.0	1.8	9.0	10.8	-
India, humid region a/	0.0	0.0	0.0	0.0	-
Dry zone	12.4	34.2	12.3	59.0	39
Humid zone	0.0	0.0	0.0	0.0	0
Region	12.4	34.2	12.3	59.0	18

	Light	Moderate	Strong	Total	Total as percentage of agricultural land
	(Millions of hectares)				
Soil fertility decline					
Afghanistan	0.0	0.0	0.0	0.0	0
Bangladesh	6.4	0.0	0.0	6.4	65
Bhutan	0.0	0.0	0.0	0.0	0
India a/	26.2	0.0	3.2	29.4	16
Islamic Republic of Iran	0.0	0.0	0.0	0.0	0
Nepal	0.0	0.0	0.0	0.0	0
Pakistan	5.2	0.0	0.0	5.2	20
Sri Lanka	0.7	0.7	0.0	1.4	61
India, dry region a/	2.2	0.0	0.0	2.2	..
India, humid region a/	24.0	0.0	3.2	27.2	..
Dry zone	7.4	0.0	0.0	7.4	5
Humid zone	31.1	0.7	3.2	35.0	20
Region	38.5	0.7	3.2	42.4	13
Waterlogging					
Afghanistan	0.0	0.0	0.0	0.0	0
Bangladesh	0.0	0.0	0.0	0.0	0
Bhutan	0.0	0.0	0.0	0.0	0
India a/	0.0	3.1	0.0	3.1	2
Islamic Republic of Iran	0.5	0.0	0.0	0.5	1
Nepal	0.0	0.0	0.0	0.0	0
Pakistan	0.8	0.4	0.8	2.0	8
Sri Lanka	0.0	0.0	0.0	0.0	0
India, dry region a/	0.0	3.1	0.0	3.1	..
India, humid region a/	0.0	0.0	0.0	0.0	..
Dry zone	1.4	3.5	0.8	5.7	4
Humid zone	0.0	0.0	0.0	0.0	0
Region	1.4	3.5	0.8	5.7	2

	Light	Moderate	Strong	Total	Total as percentage of agricultural land
	(Millions of hectares)				
Salinization					
Afghanistan	1.3	0.0	0.0	1.3	3
Bangladesh	0.0	0.0	0.0	0.0	0
Bhutan	0.0	0.0	0.0	0.0	0
India a/	0.0	3.5	3.5	7.0	4
Islamic Republic of Iran	5.0	7.0	4.0	16.0	27
Nepal	0.0	0.0	0.0	0.0	0
Pakistan	1.9	1.0	1.3	4.2	16
Sri Lanka	<0.1	0.0	0.0	<0.1	2
India, dry region a/	0.0	3.5	3.5	7.0	..
India, humid region a/	0.0	0.0	0.3	0.3	..
Dry zone	8.2	11.5	8.5	28.1	19
Humid zone	<0.1	<0.1	0.3	0.4	<1
Region	8.2	11.5	8.8	28.5	9
Lowering of the water table					
Afghanistan	0.0	0.0	0.0	0.0	0
Bangladesh	0.0	0.0	0.0	0.0	0
Bhutan	0.0	0.0	0.0	0.0	0
India a/	0.1	0.1	0.0	0.2	<1
Islamic Republic of Iran	12.1	7.4	0.0	19.5	33
Nepal	0.0	0.0	0.0	0.0	0
Pakistan	0.0	0.1	0.0	0.1	<1
Sri Lanka	0.0	0.0	0.0	0.0	0
India, dry region a/	0.1	0.1	0.0	0.2	..
India, humid region a/	0.0	0.0	0.0	0.0	..
Dry zone	12.2	7.7	0.0	19.8	13
Humid zone	0.0	0.0	0.0	0.0	0
Region	12.2	7.7	0.0	19.8	6

a/ Values of water erosion for India may be substantially higher.

Table 5. Estimates of forest area and rate of deforestation

Country a/	Total land area	Forest area 1980	Forest area 1990	Forest cover 1990	Annual deforestation	Rate of change
	(millions of hectares)			(percentage)	(thousands of hectares)	(percentage)
Bangladesh	13.0	1.1	0.8	5.9	38	-3.28
Bhutan	4.7	3.0	2.8	59.8	16	-0.55
India	297.3	55.1	51.7	17.4	339	-0.62
Nepal	13.7	5.6	5.0	36.7	54	-0.98
Pakistan	77.1	2.6	1.9	2.4	77	-2.92
Sri Lanka	6.5	2.0	1.7	27.0	27	-1.34
Total (6 countries)	412.3	69.4	63.9	15.5	551	-0.79

Source: Food and Agriculture Organization of the United Nations forest resources assessment 1990 project.

a/ Data for Afghanistan and the Islamic Republic of Iran are not currently available.

Annex II

MAPS

Map 1. The South Asia region, by country and humidity zone

Source: United Nations Environment Programme/International Soil Reference and Information Centre.

Note: 90-day LGP = 90-day length of growing period.

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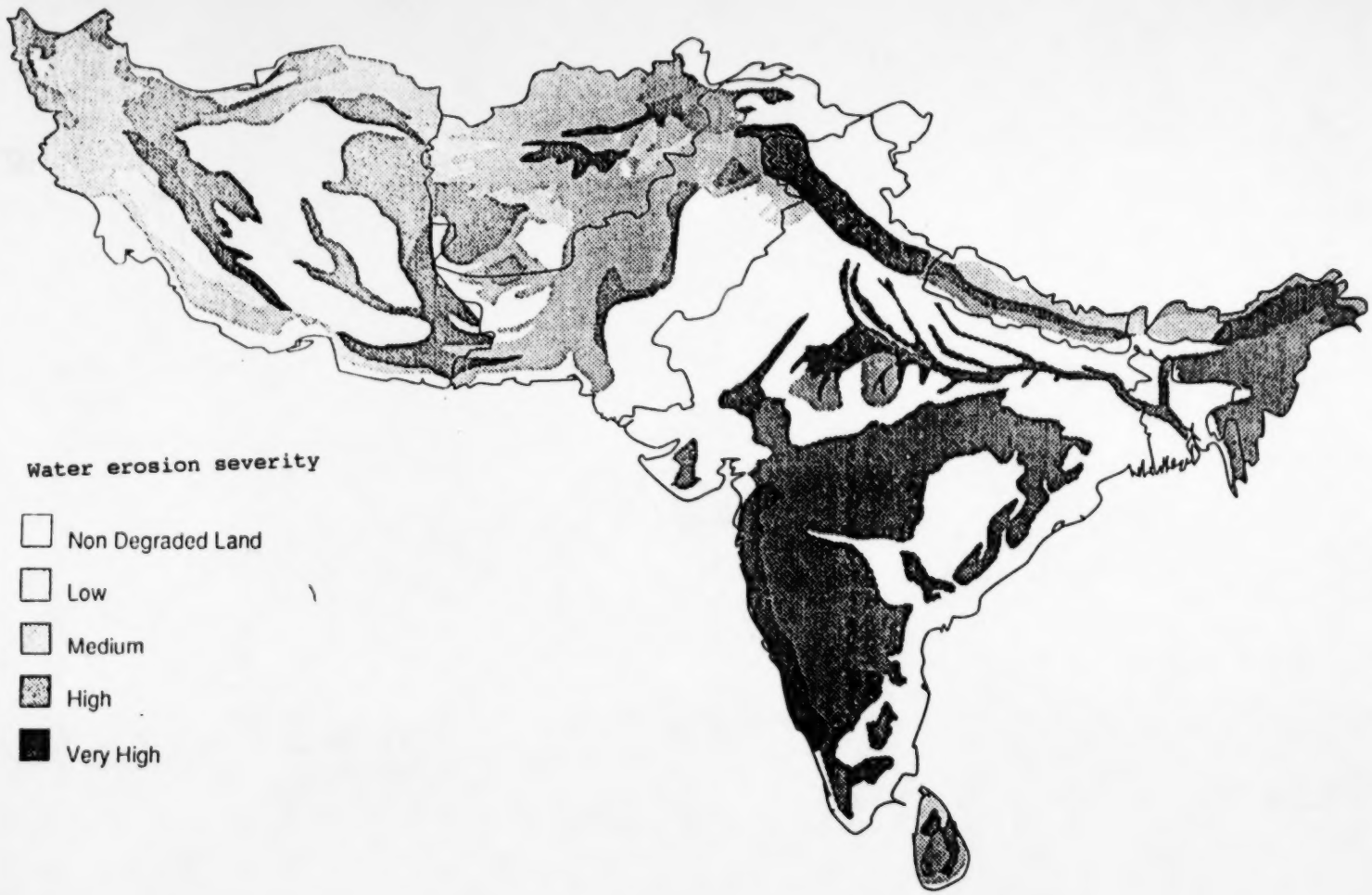
Map 2. Severity of water erosion (GLASOD estimate)



Source: United Nations Environment Programme/International Soil Reference and Information Centre.

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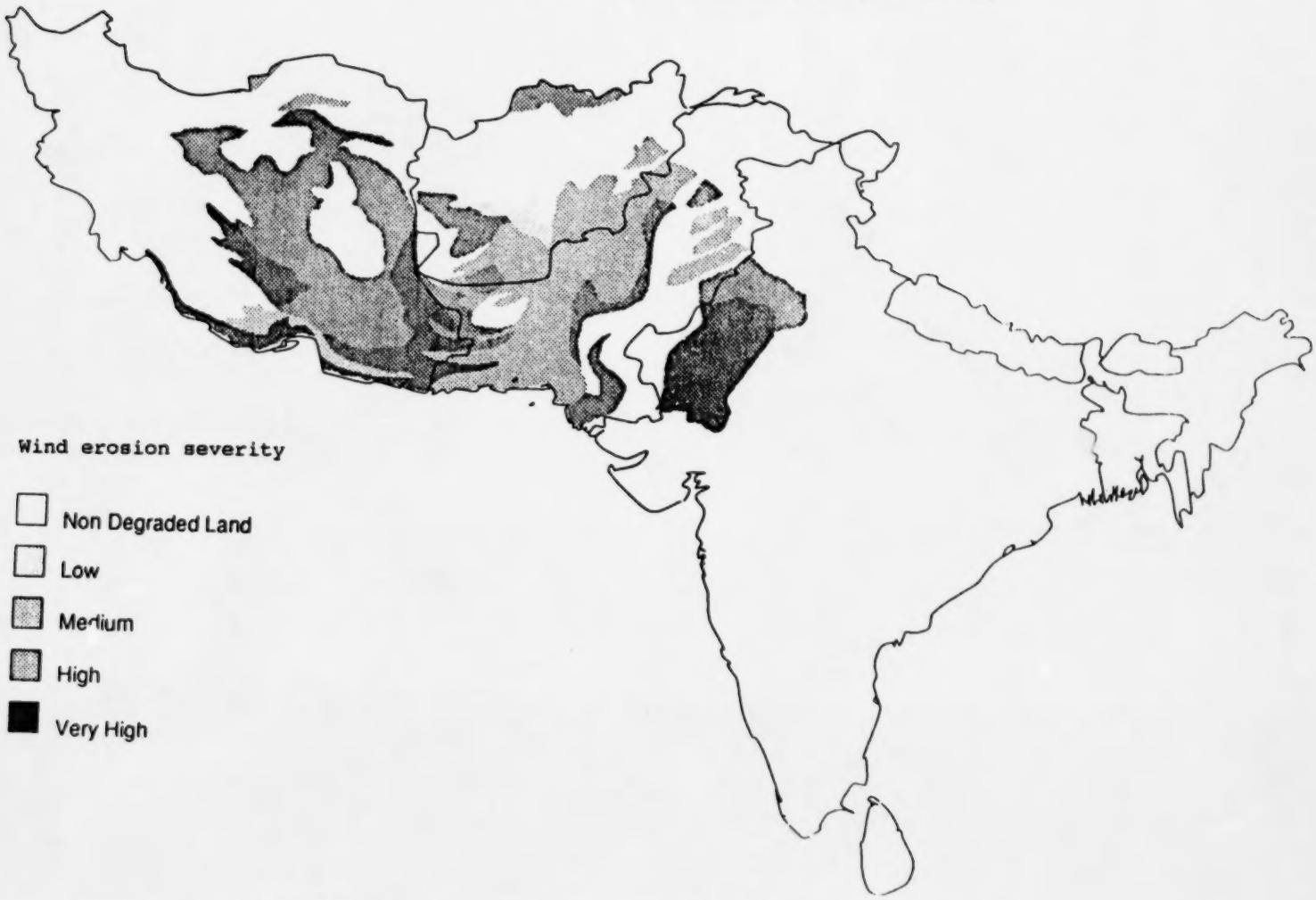
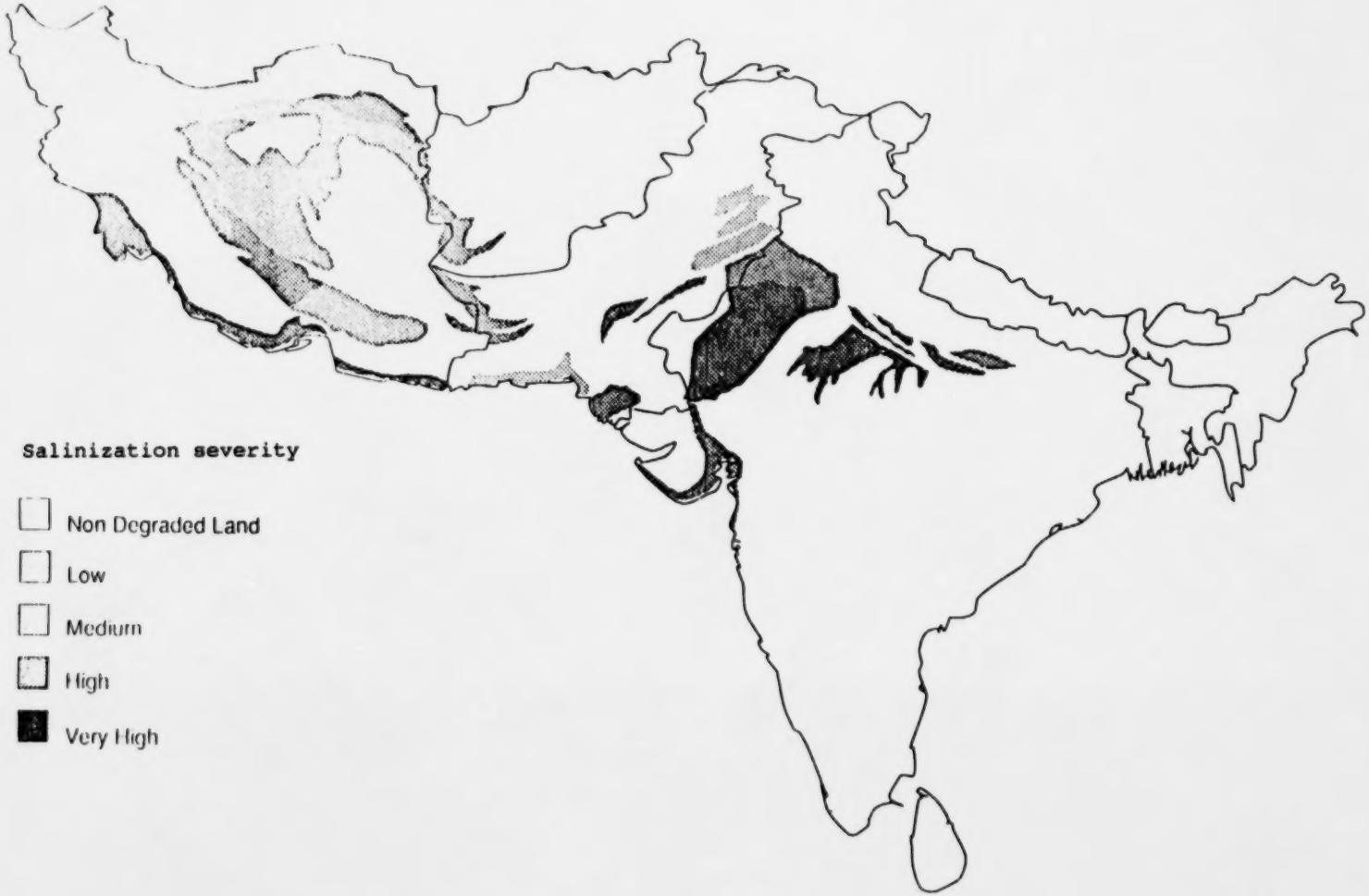
Map 3. Severity of wind erosion (GLASOD estimate)



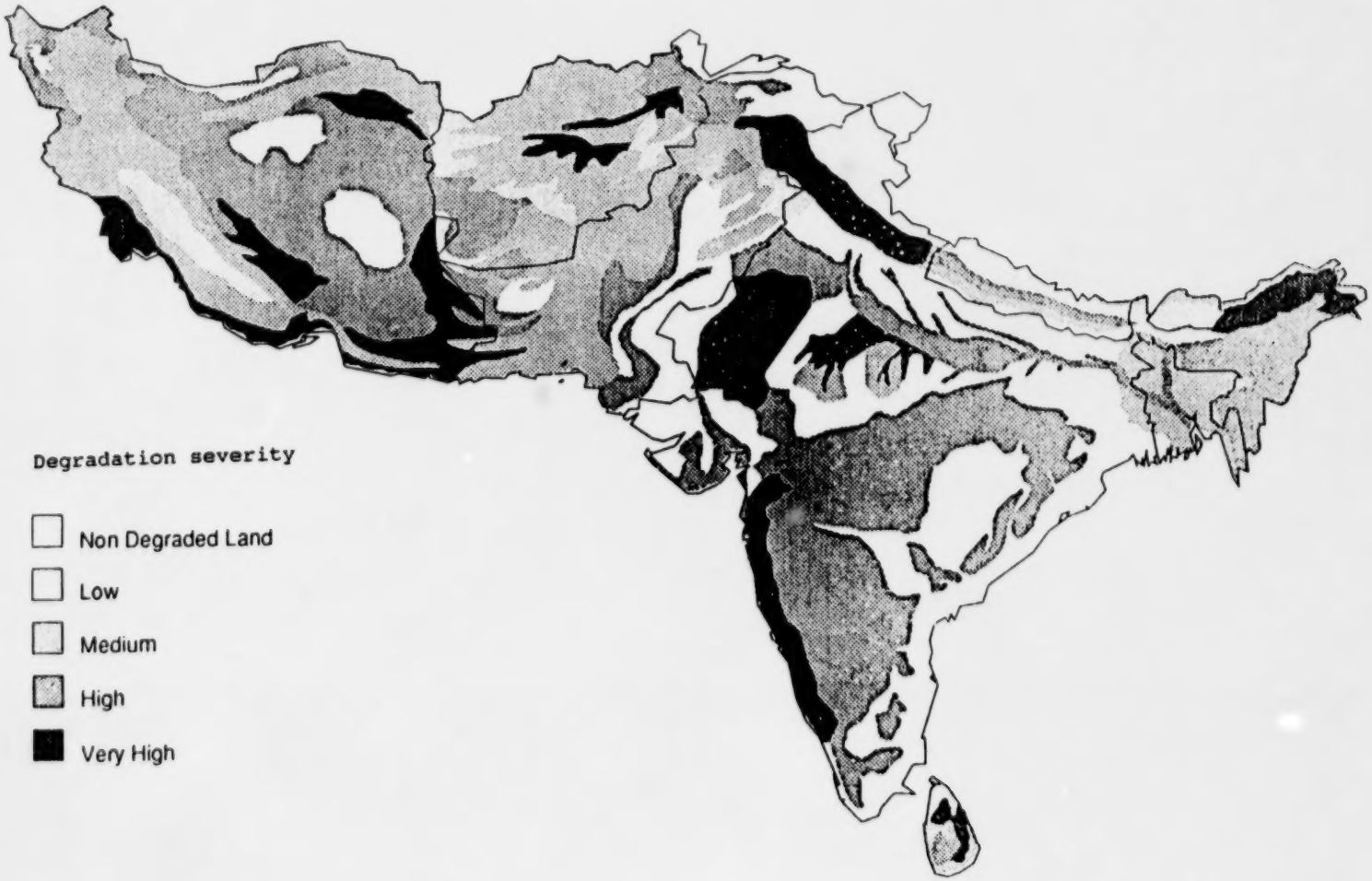
Source: United Nations Environment Programme/International Soil Reference and Information Centre.

Map 4. Severity of salinization (GLASOD estimate)



Source: United Nations Environment Programme/International Soil Reference and Information Centre.

Map 5. Severity of land degradation



Source: United Nations Environment Programme/International Soil Reference and Information Centre.

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COORDINATION QUESTIONS: MULTISECTORAL COLLABORATION ON TOBACCO OR HEALTH

Note by the Secretary-General

The Secretary-General has the honour to transmit to the Economic and Social Council, as an annex to the present note, the report of the Director-General of the World Health Organization on multisectoral collaboration on tobacco or health, prepared in pursuance of Economic and Social Council decision 1993/212.

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* E/1993/100.

Annex

MULTISECTORAL COLLABORATION ON TOBACCO OR HEALTH

Report of the Director-General of the World Health Organization

In May 1992 the Forty-fifth World Health Assembly expressed renewed concern about the economic effects of the reduction of tobacco production in the tobacco-producing countries which are still unable to develop a viable economic alternative to tobacco. In adopting resolution 45.20 on multisectoral collaboration on the World Health Organization (WHO) programme on tobacco or health, the World Health Assembly requested the Economic and Social Council to include the subject of tobacco or health in the agenda of its substantive session of 1993, a proposal which was accepted by the Economic and Social Council during its organizational session in decision 1993/212.

The present document introduces essential elements on tobacco production, commercialization and consumption and gives an overview of the health effects of tobacco use. It summarizes policy decisions by the World Health Assembly, emphasizes the complexity and importance of this subject far beyond the responsibility and capacity of WHO, and proposes multisectoral collaboration for the future.

CONTENTS

		Paragraphs	Page
I.	TOBACCO, DISEASES AND DEATHS	1 - 14	4
	A. Tobacco-related diseases	1 - 3	4
	B. Tobacco-related mortality: present situation and projections	4 - 7	4
	C. Tobacco control and health gains	8 - 14	5
II.	TOBACCO GROWING, MANUFACTURING AND TRADING	15 - 45	7
	A. The impact of tobacco production on the economy: world overview	15 - 27	7
	B. Environmental costs of tobacco production	28 - 33	10
	C. Impact on national economies	34 - 45	11
III.	WHO CONCERNS WITH TOBACCO OR HEALTH ISSUES	46 - 51	15
	A. World Health Assembly policy and WHO activities	46 - 48	15
	B. Collaboration with relevant United Nations agencies	49 - 51	16
IV.	MULTISECTORAL COLLABORATION ON TOBACCO OR HEALTH	52 - 59	17
	A. The need for multisectoral collaboration	52 - 54	17
	B. Recommendation for future action	55 - 59	18

Appendices

I.	World Health Assembly resolution 42.19	20
II.	World Health Assembly resolution 43.16	22
III.	World Health Assembly resolution 45.20	24

I. TOBACCO, DISEASES AND DEATHS

A. Tobacco-related diseases

1. In populations where smoking has been a long-established custom, about 90-95 per cent of lung cancer cases, 40-45 per cent of all cancers and over 80 per cent of cases of chronic bronchitis and emphysema are attributable to tobacco use, as are some 20-25 per cent of coronary heart disease and stroke deaths. Numerous other adverse health conditions, including respiratory distress, gastric ulcers and pregnancy complications, are also attributable to smoking. The adverse effects of smoking on pregnancy range from low birth weight to increased incidence of spontaneous abortions, prematurity, still-births, sudden infant death syndrome and neonatal deaths. Low birth weight is one of the strongest predictors of infant mortality. Other long-term effects on the child include impaired physical and intellectual development. Tobacco used in smokeless forms, e.g., for chewing or snuff taking, is a major cause of oral cancer in countries, mostly on the Indian subcontinent, where the habit is widespread.

2. Tobacco smoke, as well as being dangerous to the smoker, is dangerous to nearby non-smokers. Besides the acute effects of eye and throat irritation due to exposure to the smoke, passive smoking increases the risk of lung cancer and, quite possibly, cardiovascular disease in non-smokers exposed for many years to sidestream smoke at the workplace and/or at home. Children are particularly sensitive to the damaging effects of enforced passive smoking.

3. Tobacco consumption is not only a major health hazard but an economic burden on individuals, families and countries at large. In addition to premature death and disease and the associated health and social costs, tobacco consumption brings about huge production losses due to excessive work absenteeism among smokers. Smoking materials are also a leading cause of many forest and residential fires and fire-related casualties. In several industrialized countries these costs have been calculated and shown to be far higher than the revenue brought to the country by the tobacco business.

B. Tobacco-related mortality: present situation and projections

4. Currently, tobacco use is estimated to account for 3 million deaths per year, with slightly more than half of these occurring in the developed world, where the cumulative exposure (primarily from smoking) has been much higher than in the developing world. Over the past decade or so, there have been very significant changes in consumption patterns, with consumption and smoking prevalence stagnating or even falling considerably in several developed countries, most notably the United Kingdom of Great Britain and Northern Ireland and the United States of America, but rising in many developing countries, especially among men. In China, for example, which alone accounts for almost one third of the entire population of the developing world, the consumption of cigarettes increased from 500 million in 1978 to 1,600 million in 1991: this represents one quarter of the world's total cigarette consumption. Over 60 per cent of Chinese men smoke, compared with less than 10 per cent of women.

Surveys conducted during the 1980s indicate that in almost 60 per cent of developing countries surveyed, over half of the men smoke, compared with fewer than 30 per cent of industrialized countries.

5. In some industrialized countries, there is increasing evidence that the peak mortality from smoking has already occurred among males and that it may shortly do so in other industrialized countries. On the other hand, among women, death rates from lung cancer, a very reliable marker of the evolution of the smoking epidemic, are rising throughout the developed world and consequently the full effects of the massive adoption of cigarette smoking by women in the post-1945 period are yet to be seen.

6. Given these trends, what are the likely future health effects of previous tobacco consumption, particularly smoking? At the global level, the annual number of tobacco-related deaths is expected to rise dramatically from 3 million to about 10 million by the 2020s. Only if there were to be a very substantial fall in smoking prevalence among adolescents would this epidemic of smoking-related deaths be tempered, since the majority of those who will die from tobacco-related diseases in the 2020s are the youth and young adults of today, born between about 1950 and 1980, precisely the period when cigarette smoking was adopted extensively on a world-wide scale.

7. Globally, unless there is a significant change in the tendency for children to become regular smokers, about 250 million of today's children and teenagers will eventually die as a result of smoking, along with a similar number of adults alive today.

C. Tobacco control and health gains

8. During the past 30 years in a number of developed countries, substantial efforts have been put into reducing the levels of smoking and considerable success has been achieved. However, there is a period of delay between the cause (smoking or chewing) and the effect (tobacco-related diseases) and, hence, the high levels of disease and mortality occurring today are the result of many decades of very heavy tobacco consumption. In the same way, a delay is to be expected between cessation of, or a decrease in, smoking and any evidence of a downturn in the levels of smoking-related disease. Nevertheless, in a few countries during the past few years, the efforts of 30 years have begun to show in the reduction in smoking-related disease incidence and mortality.

9. Just as increases in tobacco consumption imply higher levels of tobacco-related diseases and mortality, decreases in tobacco consumption lead progressively to a reduction in these conditions. In particular, lung cancer, a typical indicator of the extent of the tobacco epidemic, begins to decline.

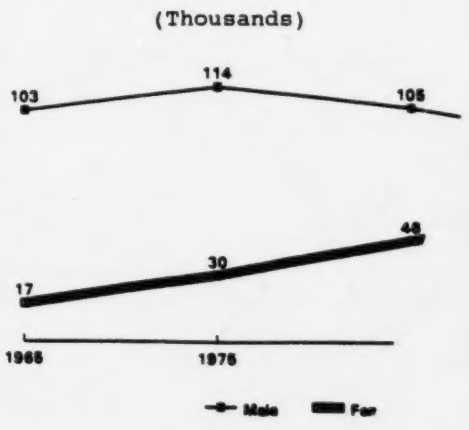
10. Records of tobacco use in the United Kingdom date back to 1870 and it is reasonable to assume that smoking was predominantly a male habit at that time. The First World War boosted the consumption both of cigarettes and of all other tobacco goods: cigarettes to 2,500 per head and all tobacco goods, including cigarettes, to around 4,500 grams. During the Second World War, smoking became more popular among women and continued to increase in the population at large. By 1950, smoking prevalence was 77 per cent for men and 38 per cent for women.

In men the figure began to fall during the late 1950s; in women the per capita consumption increased to 2,630 in 1974 before a downturn became apparent and the prevalence of smoking increased to 45 per cent in 1966 before starting to fall, in response to health information campaigns.

11. Throughout the United Kingdom, lung cancer in men reached a plateau in the 1970s and the rate then began to decrease. These observations are in accord with the changes in smoking habits and the expected time lag between the cause and effect: the highest annual per capita cigarette consumption for adult males was 4,030 in 1960 and the smoking prevalence in males has been falling since that date. For women, no similar disease plateau is yet apparent, in keeping with the fact that the female per capita figure continued to rise until 1974 when it reached 2,630 and the smoking prevalence in women did not start to show any decrease before 1970.

12. Although lung cancer is perhaps the best known of the diseases causally associated with smoking, three to four times as many smoking-related deaths occur from diseases other than lung cancer, primarily vascular diseases. As smoking has declined among men, so has the overall total number of smoking-related deaths. Conversely, smoking-related mortality is progressively rising among women and, in countries such as the United Kingdom, may soon overtake smoking-related deaths among men. These trends are summarized in figure I.

Figure I. Smoking-attributed deaths (all ages, all causes) in the United Kingdom



Source: WHO estimates.

13. These data are extremely encouraging and show the success that can be achieved in not only bringing to a standstill the escalating smoking-related disease mortality but also reversing the trend.

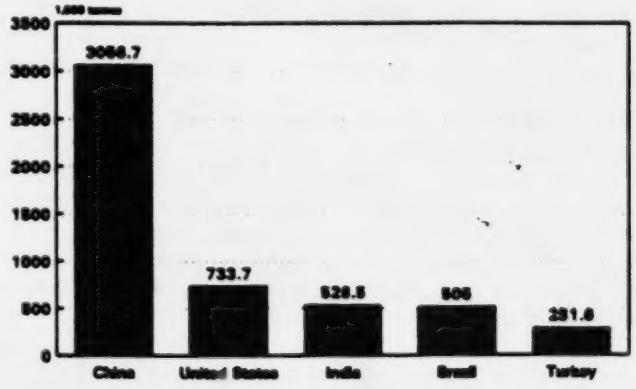
14. Even in industrialized countries, however, the pattern is far from uniform. Notably, tobacco-related mortality and tobacco consumption are both high and rising in all countries of Central and Eastern Europe. With recent economic liberalization in Central and Eastern Europe, tobacco marketing and promotion techniques, previously unknown in the region, have been introduced, and are retarding or even reversing progress in tobacco control in these industrialized countries.

II. TOBACCO GROWING, MANUFACTURING AND TRADING

A. The impact of tobacco production on the economy: world overview

15. A large number of countries in the world produce tobacco commercially (see figure II) but only a few developing countries depend on tobacco production as a major source of income. World tobacco production is rising, having increased by 10 per cent from 7.1 million tonnes in 1990 to 7.8 million tonnes in 1992. Although the total area of land devoted to growing tobacco represents only 0.3 per cent of the world's arable and permanent crop area, in a number of countries a more significant proportion of arable land is used for tobacco production. These countries include Malawi (4.3 per cent), Bulgaria (2.5 percent), Zimbabwe (2 per cent) and China (1.1 per cent).

Figure II. Top five tobacco-producing nations in 1992
(Farms sales, weight basis)



Source: United States Department of Agriculture, June 1992.

16. The geographical distribution of tobacco production has undergone a significant change over the past two decades. Developing countries' share of world tobacco production rose from 53 per cent in 1962-1964 to 69 per cent in 1985-1987, while over the same period the share produced by developed countries has declined from 47 per cent to 31 per cent. The chief factors in this shift were increased production in Bangladesh, Brazil, China, India, Indonesia, Republic of Korea, Thailand and Turkey, coupled with a sharp decline in production in the United States of America. Since 1987, however, world demand for tobacco leaf grown in the United States has increased and United States production has grown concomitantly from 0.62 million tonnes in 1988 to 0.76 million tonnes in 1992. (Total world production of tobacco leaf in 1992: 7.8 million tonnes.)

17. These trends are mirrored in the patterns of world tobacco consumption. Over the past decade, world consumption of leaf tobacco has been rising at around 2.4 per cent per annum. However, in many developed countries such as Canada, France, the United Kingdom and the United States, tobacco consumption is declining, whereas in developing countries, including Brazil, China, India, Indonesia and many others, it is rapidly increasing. The reduction in tobacco consumption in the developed world is due to increased health awareness following antismoking campaigns, heavy taxation and the subsequent high retail price of tobacco products, as well as the increasing social stigma attached to smoking. More worrying is the fact that in the developing countries, the increase in consumption has been almost entirely in the form of manufactured cigarettes, with a decline in traditional smoking methods and a corresponding move from home-produced cigarettes to factory-made products.

18. A significant exception to this trend is found on the Indian subcontinent. There, rapid growth is also observed in tobacco consumption, but most of this growth is in indigenous products. In India, manufactured cigarettes hold only a 5 per cent to 10 per cent share of the total tobacco market and this is declining. Most of the growth is in consumption of bidis, pan, khaini and other smokable or chewable tobacco products. Significantly, all of these products are hazardous to health; like manufactured cigarettes, they generate economic activity in the form of tobacco growing, production, employment and consumption.

19. Tobacco is a lucrative short-term cash crop and tobacco prices tend to be stable in contrast to the price instability of other commodities. However, this profitability is not necessarily part of the natural order; it is partly due to price support and other policy measures operating in the great majority of producer countries. These measures include production and supply management programmes, provision of seed, fertilizer and other inputs, as well as soft loans to tobacco farmers, guaranteed prices, premiums to buyers of domestic leaf, and export subsidies.

20. The processing of tobacco and the manufacture of tobacco products also provide employment, as do related industries such as agricultural equipment and transportation and engineering related to tobacco processing. Many people are also employed in the wholesale and retail trade in tobacco but it is difficult to estimate the number solely employed in the sale of tobacco products, at both the wholesale and retail levels.

21. In reviewing the effect of tobacco production on countries' economies, there are comparative issues to take into consideration. For example, China, the United States, India and Brazil are major producers of tobacco leaf but the economic significance of tobacco to each, as to many other producing countries, is quite different. In 1987 China exported relatively little tobacco whereas the United States was the leader in tobacco exports world wide (15 per cent), followed by Brazil with 13 per cent.

22. But by 1992, Chinese exports grew sixfold and China had become the world's sixth leading tobacco leaf exporter after the United States, Brazil, Zimbabwe, Italy and Greece.

23. It is also of interest to consider the effect of tobacco on the trade balance in each country. Thus, in Malawi, tobacco is the backbone of the economy, with tobacco export earnings in 1988 reaching almost 60 per cent of total income from exports; in Zimbabwe it was 20 per cent; but in Brazil exports of leaf tobacco have never exceeded 2-3 per cent of the total value of all exports. Other developing countries spend more on importing tobacco than they earn in exporting it. A large number of developing countries (including the least developed countries) have an important deficit in their balance of trade for tobacco products, such as Angola, Bangladesh, Benin, Burkina Faso, China, Ethiopia, Papua New Guinea and Somalia.

24. Moreover, it is apparent that world leaf trade is no longer expanding rapidly, due to the reduction of consumption in the developed countries. An additional factor in the slowing down of leaf demand is the development of manufacturing techniques that reduce total leaf requirements, such as the use of tobacco sheet made from leaf, stem, ribs and dust as a cigar wrapper and as a filler to be blended with leaf in cigarette tobacco. Puffed, foam and freeze-dried tobaccos also reduce the weight of tobacco used per cigarette. These techniques, in addition to a gradual extension of the filter tip, shortening of the tobacco column, and reduction in cigarette circumference, are likely to lead to a decline in leaf demand over the long term. This is one indication that the long-standing price stability of tobacco, in an otherwise unstable agricultural commodities market, may not continue indefinitely.

25. Other trends in the international tobacco trade are also becoming less favourable to developing countries. Generally their share of the export market is decreasing as consumption declines in the developed world, while their cigarette imports are rising due to the prevalence of a tobacco habit initiated and perpetuated by their own involvement in tobacco production. Thus, here is a loss of foreign currency due to a reduction in leaf exports and an increase in the import of cigarettes, a combination which, if the trends continue, will result in a net loss in the longer term.

26. Reduced demand in developed countries, notably the United States, the European Community and Nordic European countries will curtail the amount of hard currency earned by developing countries that supply them with tobacco. Consequently, tobacco-importing countries will increasingly be those of Central and Eastern Europe and others that pay with non-convertible currency or deal in countertrade. This development is likely to severely handicap countries that currently rely heavily on tobacco export revenues. This has important implications, in that tobacco is currently seen in many developing countries as

a hope in the face of balance-of-payment deficits. Thus any reduction in export revenue linked with an increase in imports is more than likely to impose additional burdens on the economy of those countries that currently have severe balance-of-payment problems. The ramifications of these changes in trade flows may be considerable, and it can be inferred that the long-term advantages to be derived from the production and export of tobacco may be substantially less than is currently stated. In fact, the long-term effect could be a considerable increase in the indebtedness of many developing countries.

27. The points outlined above, as well as the fact that tobacco production may entail environmental losses, add to the very serious concerns arising from the effects of tobacco on the health of a population. When these negative effects are superimposed on the ill-health and mortality consequences of tobacco consumption, the problems are severe and far-reaching.

B. Environmental costs of tobacco production

28. Production of tobacco carries an environmental risk in many countries resulting from soil degradation, the use of pesticides and deforestation.

Soil degradation

29. In relation to other crops, tobacco is very demanding of nutrients. Furthermore, tobacco depletes soil nutrients faster than other crops, an important consideration in developing countries, particularly those where soils are characterized by their low nutrient content. Consequently, to maintain soil fertility, this extraction of nutrients must be balanced by suitable inputs of costly and, in many cases, imported fertilizers. Where tobacco is cultivated on land with minimal rotation, there is also a tendency for the soil to become exhausted and crop pests to become endemic. The alternative to replenishment is to exhaust soil fertility and then clear new land which can be cultivated. In the past this shifting cultivation has been responsible for deforestation and, to some extent, still is today.

Use of pesticides

30. Before 1940 few effective crop-protection chemicals were available to farmers. Along with the growth in the number and use of pesticides, the possibility of unwanted effects became more generally recognized. Although tobacco grows like a weed, the production of good-quality leaf is notoriously beset by problems requiring the use of herbicides, nematocides, fungicides, insecticides and chemicals. Thus, the use of complex chemical compounds brings the possibility of crop contamination, with the inherent danger to those who smoke or chew the leaf; land and water-supply contamination, bringing danger to local communities; and occupational hazards to the farmers and their families.

Use of wood

31. Increasing concern has been expressed over deforestation and associated environmental problems such as soil erosion, siltation, flooding and droughts, and the depletion and, in some cases, extinction of wildlife. Crop failures

caused by floods or droughts are a real loss to both farmers and the national economy.

32. Countries where fuelwood is an important input to tobacco production include Bangladesh, Brazil, Kenya, Malawi, Malaysia, Pakistan and the United Republic of Tanzania. However, tobacco production is responsible for forest depletion in a number of ways other than the use of wood for curing purposes. First, trees are felled to provide land for tobacco cultivation. Secondly, wood is utilized in the construction of barns for flue and air-cured tobaccos, as well as ancillary equipment used in the curing process. Thirdly, wood-based materials are used for packaging tobacco and for cigarette manufacture.

33. A recent study carried out by the International Forest Science Consultancy in Argentina, Brazil, India, Kenya, Malawi, Thailand and Zimbabwe indicates that the amount of wood required to cure one kilogram of tobacco ranges from 4.8 kg in Argentina to 12.9 kg in Malawi. It was estimated that the total annual consumption requirements of the tobacco sector in developing countries is some 9.25 million m^3 of wood per annum. Although the tobacco sector's use of wood is small in comparison with total wood consumption in tobacco-producing countries, the point should be stressed that many tobacco areas lie within parts of the world that have been identified by the Food and Agriculture Organization of the United Nations (FAO) as having, or likely to have, a wood deficit. Moreover, the area of all types of woodland in most African and Asian countries is now below the level at which it is capable of meeting present and future fuelwood demand on a sustainable basis. As a result, accelerating deforestation is expected, with potentially serious ecological consequences, and tobacco's contribution to this should not be underestimated.

C. Impact on national economies

34. It would appear from the facts outlined above that a good case can be made to show that tobacco has a significant economic impact on some countries by providing incomes for farmers and other workers. However, if tobacco production and manufacturing were either decreased or had never been introduced, most, if not all, of these incomes would be generated in forms currently available or in other ways. Consequently, people who are involved in growing tobacco and those involved in the manufacture and distribution of tobacco products, would grow, manufacture and distribute alternative crops and other products.

35. Assessments of the possibilities of crop diversification in individual countries have shown the feasibility of crop diversification in various regions. While the stability of pricing for tobacco crops and the lack of extreme variation in demand for tobacco compared to other agricultural crops have been underlined, it should be noted that many of these advantages of producing tobacco find their origins in private or public subsidies, tariffs and supply restrictions that support high tobacco prices (see section below); and the long-term prospects are for steadily declining demand for tobacco products as the health concerns are taken into consideration world wide.

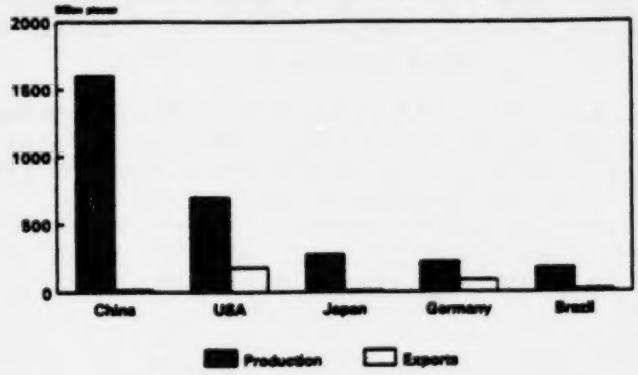
36. To begin to measure the economic impact on a national economy of growing tobacco, it is necessary to know the gross value of production; the costs of production (seed, fertilizer, acquisition of production tools); the extent to

which the above are affected by subsidies (governmental or private); and the net environmental costs of producing tobacco that are not captured by market prices. It is also necessary to calculate the gross return and costs of production from the next most profitable farm activity. It should be underlined that the farm component in the retail value of cigarettes is very small: in the United States of America, only 6 cents goes to the tobacco farmer from a US$ 2 pack of cigarettes, whereas the advertiser receives 16 cents.

37. It will also be necessary to determine, for both the short and long term, the economic costs of premature deaths, the economic cost of added morbidity and the cost of medical care. As an example, it can be mentioned that in 1985, in the United States, the total direct health care costs associated with smoking were estimated at over US$ 12 billion, or about 5 per cent of all direct health care costs in that year. The total lifetime excess medical care costs for smokers were also estimated to exceed those for non-smokers by US$ 501 billion - an average of over US$ 6,000 per current or former smoker. In the United Kingdom as well, smoking-attributable diseases cost the National Health Service more than £400 million each year, with over 50 million working days lost annually due to tobacco-induced illnesses. In 1991, in Australia, the total health care costs of smoking in 1988 were estimated at A760 million and "savings" (of non-smokers' additional years of costs) from premature deaths were A150 million, resulting in net costs of A610 million. In Japan, a study that linked the records of a health survey and the medical insurance records estimated that, in 1987, the medical costs for children in smoking households were 30 per cent higher than those in non-smoking households (US$ 260 vs US$ 200 per child). In developing countries, where epidemiologic transition is currently going on, tobacco-related diseases are also increasing. In Brazil, the cost of public information and personal smoking cessation services is estimated at 0.2-2.0 per cent of per capita GNP for each year of life gained, while treatment for lung cancer costs 200 per cent of per capita GNP per year of life gained. Although there are few data on the economic burden of smoking for most developing countries, it should be remembered that these countries have to pay simultaneously not only for communicable diseases but also non-communicable tobacco-related diseases. Some comparisons will need to be done on an international level as the costs and benefits of tobacco production and consumption do not necessarily occur in the same countries.

38. While tobacco may be a source of employment not only in the agricultural (primary) sector but also in the secondary and tertiary sectors, it does not affect countries in the same way. Figure III shows, for example, that the main producers of cigarettes are not the same as the main producers of tobacco; it is also a source of reduced productivity through various factors such as absenteeism, fires, disruption of work and the like. Finally, the economic cost of labour used in the manufacture of tobacco products, as well as in retailing, is the opportunity cost of that labour. In a well-functioning labour market, the opportunity cost of labour is the prevailing wage.

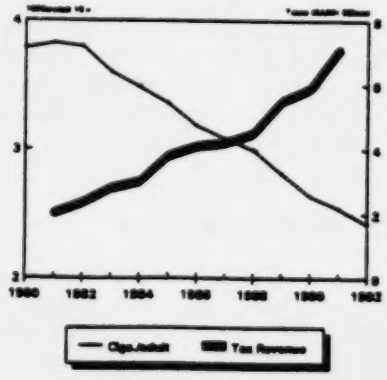
Figure III. Top five cigarette-producing countries and their cigarette exports, 1991



Source: United States Department of Agriculture, August 1992.

39. Tobacco taxes are an important source of government revenue, as well as an important health policy tool for discouraging tobacco consumption. Provided that smuggling is reasonably well controlled, that all tobacco products are taxed at similar rates, and that taxes are effectively collected on all tobacco products, tobacco taxes have proven important in achieving both health and fiscal objectives. In circumstances of rising tobacco taxes, government revenues will continue to increase for many years, even as tobacco consumption declines. Figure IV shows that government tax revenues in Canada increased through progressively higher rates of tobacco taxation during the 1980s; while, at the same time, tobacco consumption decreased due to higher tobacco taxes and other measures.

Figure IV. Cigarette consumption and tobacco taxes in Canada, 1980-1992



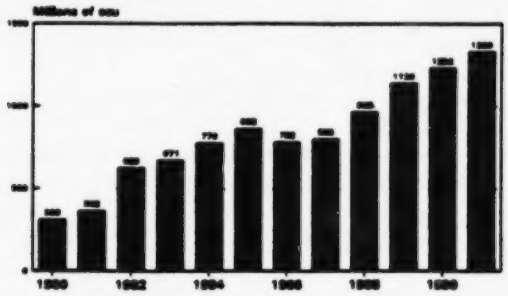
Note: 1985-1992 data adjusted for smuggling.

Sources: Statistics Canada and Canadian Tobacco Manufacturers' Council.

40. Moreover, in many countries, taxes collected on tobacco can be earmarked as a source of revenue for investment in further tobacco control measures, improving health care, or other important social investments. Such strategies are currently employed in countries as diverse as Australia, New Zealand, Portugal and Romania, all countries where tobacco is grown.

41. While tobacco brings in added revenue to individual Governments through taxes, it is also a source of expenditure to Governments through subsidies. For example, of all the crops supported by the common agricultural policy of the European Community, tobacco cultivation has seen the highest increase in expenditure. In 1980, 309 million European currency units (ECUs) were spent on tobacco subsidies. This rose to 1,330 million ECUs in 1991 (or a 4.3 times increase in a period of 11 years) as shown by figure V below.

Figure V. European Community expenditure on tobacco subsidies from 1980 to 1991



Source: Commission of the European Communities.

42. The benefit derived from tobacco production or use in terms of the foreign exchange position of the country is difficult to assess. However, foreign exchange earnings are important to all Governments and are critical to the economic development efforts in many developing nations. Tobacco affects foreign exchange through imports and exports of leaf or manufactured products and of machinery and supplies used in processing leaf for manufacturing tobacco products.

43. Lastly, in some cases special trade agreements or concessionary sales may alter the foreign exchange effects of tobacco. Recent political and economic realignments in the world have had a number of consequences for world tobacco trade. As recently as the mid-1980s, major transnational tobacco companies were important only in about one third of the world's tobacco markets. Now, they operate almost everywhere in the world, including China (through joint venture agreements), in some other countries of Asia, and, more recently, in some countries of Western and Eastern Europe where State monopolies had previously imposed import restrictions to protect their markets from foreign influence.

44. While these companies are not yet dominant in all the new markets that have opened to them, they can bring new forces to bear on tobacco production and consumption. Modern techniques of tobacco advertising and promotion, typically most expertly practised by the transnational tobacco companies, can be used to make tobacco use appear very attractive. This can have the effect of slowing down rates of smoking cessation, and encouraging more widespread smoking among segments of the population where smoking was previously relatively rare, such as women and young adolescents of both sexes. The heightened competition brought about by the new presence of transnational tobacco companies, through new advertising and other means, could result in new segments of the population taking up the tobacco habit and overall levels of tobacco consumption being higher than they would be in the absence of these companies.

45. New investments from transnational tobacco companies in tobacco marketing, and the related activities of tobacco growing, manufacturing and distribution, sometimes imposed on countries, can appear initially very attractive to countries in economic difficulty, but in reality, they are a form of private subsidy which can lead to the long-term economic costs and disastrous public health consequences that were outlined previously.

III. WHO CONCERNS WITH TOBACCO OR HEALTH ISSUES

A. World Health Assembly policy and WHO activities

46. As early as 1970 the World Health Assembly expressed concern over the serious effects of smoking on the pulmonary and cardiac diseases, including broncho-pulmonary cancer, chronic bronchitis, emphysema and ischaemic heart diseases. It also requested the Director-General of WHO to bring to the attention of FAO the need for studying crop substitution in tobacco-producing countries (World Health Assembly resolution 23.32). Since then, the subject has been regularly brought up by the World Health Assembly, which has emphasized the need to study the economic component of the problem through a multidisciplinary approach.

47. The interest expressed by the World Health Assembly has led during the past few years to a certain number of studies and implementation of projects in various countries in collaboration with other agencies of the United Nations system. In addition, the World Bank, together with FAO and representatives of other agencies, attended and participated actively in WHO expert committees and an inter-agency meeting on smoking and health; they showed a readiness to collaborate in tobacco control if approached by individual countries. However, the magnitude and complexity of the problems involved have made it difficult to reach final conclusions and to develop specific long-term country programmes.

48. Of particular importance were the recent resolutions, World Health Assembly resolutions 42.19 (see annex I) and 43.16 (see annex II), which led to extensive studies. From these studies it would appear that in both developed and developing countries there are crops that match or exceed the level of return from tobacco. However, some crops that give high returns, such as fruits and vegetables, have a limited potential because of market constraints and unstable prices, and farmers may be reluctant to produce alternative crops unless they have a market for them. Given these factors it is clear that specific studies

will be required for individual countries or even provinces. The experience gained from these wide-ranging studies, in addition to more specific technical recommendations on particular issues, led the Forty-fourth World Health Assembly to conclude that:

(a) It is necessary to adopt a country-by-country approach when considering the economic impact of tobacco production and consumption on the economy, on the environment and on health. Different trading policies may influence the interest and benefits to be derived from tobacco production. Successful cases of crop substitution have all involved complex packages of public policy measures at the national and international levels developed on the basis of local knowledge;

(b) Developing countries that depend on tobacco production as a major source of income are likely to need external support to divert from tobacco to other crops or activities and to find markets to dispose of them. This support can be given on a technical basis by the Food and Agriculture Organization of the United Nations, the United Nations Industrial Development Organization, the United Nations Conference on Trade and Development, the International Labour Organisation or the General Agreement on Tariffs and Trade; however, to strengthen the position of these organizations, decisions and resolutions to act in these areas will have to be taken by their respective governing bodies, within their field of competence. External resources to support this diversification may also need to be sought.

B. Collaboration with relevant United Nations agencies

49. In response to the above-mentioned resolutions, the Director-General of WHO contacted, in many instances, the relevant United Nations agencies in order to explore the possibilities and methods of collaborating with them in the elaboration of country programmes and, in particular, to encourage crop substitution programmes in countries whose economies depended heavily on tobacco. This collaboration led to the production of a few reports but no substantive formal programmes were established, for example, to further research on crop substitution, trade, employment and the implications of phasing out tobacco production and consumption.

50. However, this collaboration has influenced the evolution of the policy of these various agencies on matters related to tobacco production and consumption. A particularly interesting development is the adoption by the World Bank of a new policy on tobacco which can be summarized as follows:

(a) The World Bank's activities in the health sector, including sector work, policy dialogue and lending, discourage the use of tobacco products;

(b) The World Bank does not lend directly for, invest in, or guarantee investments of loans for tobacco production, processing or marketing. However, in the few countries that are heavily dependent on tobacco as a source of income and of foreign exchange earnings (i.e., those where tobacco accounts for more than 10 per cent of exports) and especially as a source of income for poor farmers and farm workers, the World Bank treats the subject within the context

of responding most effectively to these countries' development requirements. The World Bank seeks to help these countries diversify away from tobacco;

(c) To the extent practicable, the World Bank does not lend indirectly for tobacco production activities, although some indirect support of the tobacco economy may occur as an inseparable part of a project that has a broader set of objectives and outcomes (e.g., rural roads);

(d) Unmanufactured and manufactured tobacco, tobacco processing machinery and equipment, and related services are included in the negative list of imports in loan agreements;

(e) Tobacco and tobacco-related producer or consumer imports may be exempt from borrowers' agreements with the Bank to liberalize trade and reduce tariff levels.

51. As a positive side-effect of this collaboration, the majority of United Nations agencies and affiliated organizations have become part of the tobacco-free environment.

IV. MULTISECTORAL COLLABORATION ON TOBACCO OR HEALTH

A. The need for multisectoral collaboration

52. During the past two years when debating the problems of developing countries that depend on tobacco production as a major source of income, the World Health Assembly considered that WHO had already made considerable efforts to comply with Health Assembly resolutions and that the limits of WHO action in this field must be carefully defined, keeping in mind that the goal of WHO activities in the tobacco or health programme was the lessening of tobacco-related health problems through reduced tobacco use. Yet for the sake of the few countries depending on tobacco production for their economic and health development, important matters such as agricultural diversification and economic support should not be neglected. It was thus felt important to ensure that these issues be discussed in the appropriate competent forums of the United Nations system, such as the governing bodies of FAO, GATT, ILO, UNCTAD and UNIDO, which would need to formulate their own resolutions on the subject. As a step in this direction the Director-General of WHO proposed to underline the importance of the tobacco-related economic issues in his report to the Economic and Social Council.

53. Presenting the issue to the Economic and Social Council in July 1991, the Director-General explained how tobacco had become a special concern of WHO, as a commodity and as a danger to health; he also expressed the WHO understanding of the plight of certain countries that depend heavily on tobacco production for sustaining their already weak economies. It was therefore essential to bring to the attention of the Council the serious socio-economic and health problems connected with tobacco production and consumption, in the hope that in due course the agencies competent in this field, in particular, FAO, GATT, ILO, UNCTAD, UNIDO and the World Bank, would take up with WHO, in a spirit of multisectoral cooperation, the important issues of crop substitution, industrial

and tobacco trade aspects, government subsidies to tobacco growers, and import duties and taxes on tobacco products.

54. The Director-General also underlined that the Governing Council of the United Nations Development Programme (UNDP) had broached the issue of drug abuse control and crop substitution at its meeting in June 1991 and that it had decided to allocate resources to finance projects in this area. He urged the international community to increase significantly its support for such efforts and expressed the hope that a similar effort to provide multilateral assistance to tobacco-related projects in some developing countries, to reduce their dependence on this crop, would also be successfully negotiated within the international community. He concluded with the need for a multisectoral and multilateral approach to the solution of such social and economic issues, a conclusion that was endorsed by the Economic and Social Council when it decided to include the provisional agenda for its substantive session of 1993, under the item entitled "Coordination questions", a sub-item entitled "Multisectoral cooperation on tobacco or health".

B. Recommendation for future action

55. Tobacco consumption is, in a number of countries, already a major avoidable cause of death, often in the poorest segment of the population. The United Nations system should do its utmost to prevent this risk from spreading further, in particular, to developing countries. While the world is acquiring the technology to break the vicious circle of poverty and disease, increased tobacco consumption in developing countries (and among women in developed countries) should not threaten to undo much of the progress made in health. Developing countries will be even less able to cope with the social and economic cost of further avoidable ill-health caused by tobacco. Yet, tobacco is an economic good and its production and trading brings in much needed revenue to people in many countries and in many walks of life.

56. The complexity and importance of this subject are far beyond the responsibility and capacity of the World Health Organization, as confirmed by World Health Assembly resolution 45.20 (see annex III). WHO will continue to deal with the health aspects of tobacco use within its own competence and resources; the many important issues in agriculture, trade, foreign exchange and employment are not matters that can be rightly brought before the World Health Assembly, nor can the WHO secretariat deal with these subjects.

57. The World Health Assembly, composed of the Governments who are also members of the Economic and Social Council, had no alternative but to address the Council. The World Health Assembly considered it to be the correct procedure when it seeks the attention of the international community on matters outside its competence and drew attention to three main concerns:

(a) The socio-economic and development implications of tobacco in countries depending on tobacco production as a major source of income;

(b) The economic effects of the reduction of tobacco production in countries which are still unable to develop a viable economic alternative to tobacco;

(c) The need for multisectoral strategies, including involvement of the other members of the United Nations system, as mentioned earlier.

58. In the framework of these complex and difficult issues far beyond the specific health promotion mandate of WHO, the World Health Assembly asked that the item be placed on the agenda of the Economic and Social Council so that the subject was officially discussed, with an appropriate follow-up in the United Nations General Assembly, and with the organizations of the United Nations system.

59. The Economic and Social Council may wish to recommend to all organizations concerned, in particular the World Bank, FAO, GATT, ILO, UNCTAD and UNIDO, that discussions be held at the decision-making level, before the end of 1993, on the issues of health, on socio-economic matters, such as agricultural diversification, trade and employment, and on tobacco-attributable health matters related to tobacco growing, processing and trading, and to establish:

(a) A focal point on the subject of multisectoral collaboration on the health and economic aspects of tobacco production and consumption, with experience in developing and handling a major policy framework in the field of tobacco control;

(b) A programme of work, organization by organization, with specific deadlines and with the appropriate involvement of countries concerned;

(c) A schedule for reporting to the Economic and Social Council on the subject and on progress made.

Appendix I

WORLD HEALTH ASSEMBLY RESOLUTION 42.19

Tobacco or health

The Forty-second World Health Assembly,

Recalling resolution WHA39.14 and resolution WHA41.25 requesting the Director-General to draw up a plan of action on tobacco or health for submission through the Programme Committee to the eighty-third session of the Executive Board;

Recognizing that the use of tobacco is responsible world wide for more than 2 million premature deaths annually;

Recalling that active efforts are needed to resolve the economic issues involved in reducing tobacco production;

Concerned at the fact that, while tobacco consumption is decreasing in developed countries as a result of effective health promotion supported by appropriate legislation and regulations, the developing countries are registering increases in tobacco consumption;

Reaffirming that the health services should clearly and unequivocally publicize the health risks connected with the use of tobacco and actively support all efforts to prevent the associated diseases;

1. THANKS the Director-General for having already accelerated implementation of the WHO programme on tobacco or health;

2. APPROVES the plan of action for the WHO programme on tobacco or health for 1988-1995 as proposed by the Director-General and endorsed by the Executive Board;

3. REQUESTS the Director-General:

(1) to continue to support this programme as outlined in the plan of action and to mobilize extrabudgetary funds for its implementation;

(2) to support national authorities, at their request, in taking measures to disseminate information on the health risks of tobacco, to promote lifestyles without tobacco, and to control the promotion of tobacco consumption;

(3) to work, in close collaboration with national health authorities, with organizations of the United Nations system, and with relevant non-governmental organizations in official relations with those organizations, to ensure that both health and economic aspects are fully taken into account;

(4) to review the impact of tobacco production on the economy, environment and health of the populations in developing countries which depend upon tobacco production as a major source of income, and to report on this issue to the Forty-third World Health Assembly;

(5) to collaborate actively with FAO and other relevant United Nations agencies with a view to developing agricultural projects that demonstrate how crop substitution programmes can be implemented in countries whose economies depend heavily upon tobacco production and to encouraging such countries to implement these programmes;

4. RESOLVES that each year 31 May shall be World No-Tobacco Day.

Appendix II

WORLD HEALTH ASSEMBLY RESOLUTION 43.16

Tobacco or health

The Forty-third World Health Assembly,

Recalling the strong statement on the issue of smoking and health made by the President in opening the Forty-third World Health Assembly;

Recalling resolutions WHA33.35, WHA39.14, WHA41.25 and WHA42.19 on the health hazards of tobacco smoking and the WHO programme on tobacco or health;

Recalling the requirement contained in resolution WHA42.19 concerning a review of crop substitution and economic aspects of tobacco production and consumption;

Recalling further that resolution WHA39.14 urged Member States to implement a comprehensive nine-point smoking control strategy;

Encouraged by:

(a) the significant progress made by many Member States in the implementation of this strategy;

(b) the continuing decline in tobacco consumption in Member States that have adopted comprehensive smoking control policies;

(c) recent information demonstrating the effectiveness of tobacco control strategies, and in particular:

- legislation or other measures to provide protection from involuntary exposure to tobacco smoke in workplaces, public places and public transport;

- policies to achieve progressive increases in the real price of tobacco;

- comprehensive bans and other legislative restrictive measures to control effectively direct and indirect advertising, promotion and sponsorship concerning tobacco;

Deeply concerned by increasing evidence of the dangers to health of passive smoking and by a new WHO estimate that, unless current smoking rates decrease, there will be 3 million tobacco-related deaths per year during the 1990s, and that this figure will rise sharply to 10 million deaths per year by the 2020s;

Believing that millions of future premature deaths can be avoided if current smoking rates are quickly and substantially reduced;

1. URGES all Member States:

(1) to implement multisectoral comprehensive tobacco control strategies which, at a minimum, contain the nine elements outlined in resolution WHA39.14;

(2) to consider including in their tobacco control strategies plans for legislation or other effective measures at the appropriate government level providing for:

(a) effective protection from involuntary exposure to tobacco smoke in indoor workplaces, enclosed public places and public transport, with special attention to risk groups such as pregnant women and children;

(b) progressive financial measures aimed at discouraging the use of tobacco;

(c) progressive restrictions and concerted action to eliminate eventually all direct and indirect advertising, promotion and sponsorship concerning tobacco;

2. NOTES that, in countries where more than one level of government exists, national authorities may not have complete jurisdiction over these issues;

3. REQUESTS the Director-General:

(1) to intensify support for the 1988-1995 plan of action for the WHO programme on tobacco or health;

(2) to ensure the provision of sufficient budgetary resources to assist Member States in implementing comprehensive tobacco control programmes;

(3) to ensure that the report requested in resolution WHA42.19 is presented to the forty-fourth World Health Assembly;

(4) to monitor and report biennially to the Health Assembly on the progress and effectiveness of Member States' comprehensive tobacco control programmes;

(5) to report to the Forty-fourth World Health Assembly on the progress made in assistance to countries that depend on tobacco production as a major source of financial resources for health and development, with emphasis on measurement of efficacy of such assistance.

Appendix III

WORLD HEALTH ASSEMBLY RESOLUTION 45.20

Multisectoral collaboration on WHO's programme on "tobacco or health"

The Forty-fifth World Health Assembly,

Having considered the Director-General's report on collaboration within the United Nations system and noting the relevance of that collaboration in approaching issues such as "tobacco or health";

Recalling resolutions WHA42.19 and WHA43.16 regarding the socio-economic and development implications of tobacco in the countries that depend on tobacco production as a major source of income;

Reaffirming the need for multisectoral strategies, including the involvement of other organizations of the United Nations system, in dealing with the complexities and difficulties of the subject of "tobacco or health";

Recalling the Executive Board's decision at its eighty-ninth session (EB89(16)) on the action taken by the Director-General in reporting to the Economic and Social Council of the United Nations and the reaffirmation of the orientation given to WHO's programme on "tobacco or health";

Concerned about the lack of appropriate follow-up activities to the Director-General's report to the session of the Economic and Social Council in July 1991 on the need for multisectoral collaboration within the United Nations system on the problem of "tobacco or health";

Concerned about the economic effects of reduced production in the tobacco-producing countries which are still unable to develop a viable economic alternative to tobacco,

1. THANKS the Director-General for his report, and for bringing to the attention of the Economic and Social Council the need for collaboration within the United Nations system on the complex issue of "tobacco or health";

2. REQUESTS the Economic and Social Council to put the subject of "tobacco or health" on the agenda of its next session so that the subject is officially discussed with an appropriate follow-up in the United Nations General Assembly and in organizations of the United Nations system;

3. REQUESTS the Director-General:

(1) to continue to seek and to facilitate multisectoral collaboration on WHO's "tobacco or health" programme within the United Nations system;

(2) to bring to the attention of the Economic and Social Council WHO's concern over socio-economic problems of tobacco production and difficulties associated with assistance to the countries dependent on tobacco production, as reflected in the report on the implementation of resolutions WHA42.19 and WHA43.16.

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DEVELOPMENT AND INTERNATIONAL ECONOMIC COOPERATION: TRANSPORT OF DANGEROUS GOODS

Work of the Committee of Experts on the Transport of Dangerous Goods

Report of the Secretary-General

SUMMARY

In accordance with Economic and Social Council resolution 645 G (XXIII) of 26 April 1957, the Secretary-General reports biennially to the Council on the work of the Committee of Experts on the Transport of Dangerous Goods. In the present report, the Secretary-General brings to the attention of the Council the work done by the Committee and its subsidiary body during the biennium 1991-1992.

The Committee welcomed the participation of an increased number of developing countries in its work.

The Committee expressed concern over the duplication of work in the field of harmonization of systems of classification and labelling of chemicals that might result from the creation of new bodies in the United Nations system in the context of the implementation of chapter 19 (Environmentally sound management of toxic chemicals including prevention of international illegal traffic in toxic and dangerous products) of Agenda 21, adopted by the United Nations Conference on Environment and Development.

The Committee requested that its new and amended recommendations be published in all the official languages of the United Nations not later than the end of 1993. The Committee once again stressed the need for adequate staff resources and funding to support its work. The Committee approved a draft resolution on its work for adoption by the Council.

* E/1993/100.

CONTENTS

		Paragraphs	Page
I.	MATTERS REQUIRING ACTION BY THE COUNCIL	1	3
II.	GENERAL ASPECTS OF THE WORK OF THE COMMITTEE	2 - 7	5
III.	WORK OF THE COMMITTEE DURING THE BIENNIUM 1991-1992	8 - 24	6
	A. Work of the Subcommittee of Experts on the Transport of Dangerous Goods	12 - 13	7
	B. Outcome of the United Nations Conference on Environment and Development	14 - 15	7
	C. Meetings held during the biennium 1991-1992	16	8
	D. Publication of the recommendations	17 - 19	8
	E. Resources	20 - 21	9
	F. Future work	22	9
	G. Calendar of meetings for the biennium 1993-1994	23	10
	H. Draft resolution on the work of the Committee	24	10

I. MATTERS REQUIRING ACTION BY THE COUNCIL

1. The Committee of Experts on the Transport of Dangerous Goods recommends to the Economic and Social Council the adoption of the following draft resolution:

Work of the Committee of Experts on the Transport of Dangerous Goods

The Economic and Social Council,

Recalling its resolutions 468 (XV) of 15 April 1953, 1983/7 of 26 May 1983, 1985/9 of 28 May 1985, 1986/66 of 23 July 1986, 1987/54 of 28 May 1987, 1989/104 of 27 July 1989 and 1991/57 of 26 July 1991,

Noting the ever-increasing volume of dangerous goods in world-wide commerce and the rapid expansion of technology and innovation,

Noting also the recommendation made by the United Nations Conference on Environment and Development, in chapter 19 of Agenda 21, that international bodies, including the International Programme on Chemical Safety of the World Health Organization, the International Labour Organisation and the United Nations Environment Programme, as well as the Food and Agriculture Organization of the United Nations, the International Maritime Organization, the Committee of Experts on the Transport of Dangerous Goods, the Organisation for Economic Cooperation and Development, in cooperation with regional and national authorities having existing classification and labelling systems and other systems for the dissemination of information, establish a coordinating group with a view to establishing and elaborating a harmonized classification and labelling system for chemicals, 1/

Noting further that in response to its requests, made in its resolutions 1983/7, 1985/9, 1986/66, 1987/54, 1989/104 and 1991/57 for adequate staff resources for servicing the Committee, an additional Professional post had been granted but has not yet been filled officially in spite of temporary redeployment arrangements,

Bearing in mind the continuing need to meet the growing concern for the protection of life, property and the environment through the safe transport of dangerous goods while facilitating trade,

Aware that in order to achieve internationally harmonized laws, the specialized agencies and other international organizations involved in activities related to the transport of dangerous goods, as well as interested Member States, have responded positively to the relevant resolutions adopted

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1/ Report of the United Nations Conference on Environment and Development, Rio de Janeiro, 3-14 June 1992, vol. I, Resolutions adopted by the Conference (United Nations publication, Sales No. E.93.I.8), resolution 1, annex II, para. 19.29.

since its resolution 468 (XV) and are committed to taking the recommendations of the Committee of Experts on the Transport of Dangerous Goods as a basis for the formulation of their requirements and regulations, including those concerning classification and labelling, and therefore rely on the work of the Committee,

Aware of the concern expressed by the Assembly of the International Maritime Organization, in its resolution A.717 (17) of 6 November 1991, with regard to the development of new conventions, legislation and recommendations relating to dangerous goods or to the management of chemicals outside the coordinated forum of the Committee of Experts on the Transport of Dangerous Goods, and aware also that the Assembly had urged all United Nations and other intergovernmental bodies concerned working on various aspects of the management of chemicals to coordinate their efforts in order to ensure the compatibility of any legislation on chemicals with established transport rules and regulations,

Recognizing the increasing need for cooperation between international bodies involved in activities related to the transport of dangerous goods and those involved in other aspects of chemical safety,

Confirming the need for the Committee of Experts on the Transport of Dangerous Goods to participate actively in relevant activities associated with the implementation of Agenda 21,

Reaffirming the desirability of widening the decision-making base of the Committee by encouraging the participation of developing countries and other non-member countries in its future work,

1. Takes note of the report of the Secretary-General on the work of the Committee of Experts on the Transport of Dangerous Goods during the biennium 1991-1992 2/ and of the new and amended recommendations approved by the Committee for inclusion in its existing recommendations; 3/

2. Requests the Secretary-General:

(a) To incorporate in the existing recommendations of the Committee of Experts on the Transport of Dangerous Goods all the new and amended recommendations approved by the Committee at its seventeenth session;

(b) To publish the new and amended recommendations in all the official languages of the United Nations, in the most cost-effective manner, not later than the end of 1993;

(c) To circulate the new and amended recommendations immediately after their publication to the Governments of Member States, the specialized agencies, the International Atomic Energy Agency and the other international organizations concerned;

2/ E/1993/57.

3/ See ST/SG/AC.10/19 and Add.1-6.

3. Invites all Governments, the specialized agencies, the International Atomic Energy Agency and the other international organizations concerned to transmit to the Secretary-General their views on the Committee's work, together with any comments they may wish to make on the amended recommendations;

4. Invites all interested Governments and the international organizations concerned, when developing appropriate codes and regulations, to take full account of the recommendations of the Committee;

5. Invites all Governments and the international organizations concerned with the implementation of chapter 19 of Agenda 21 and participating in the development of a globally harmonized system of classification and labelling of chemicals to avoid duplication of work and to ensure that, to the greatest extent possible, the new system draws on, or is compatible with, the internationally well-recognized and implemented system developed by the Committee of Experts on the Transport of Dangerous Goods;

6. Requests the Secretary-General to take all necessary steps for ensuring secretariat representation of the Committee of Experts on the Transport of Dangerous Goods at appropriate meetings of international organizations committed to implementing the recommendations of the Committee or involved in the process of global harmonization of classification and labelling systems for chemicals;

7. Recommends once again that adequate funding be provided to support the work of the Committee;

8. Recommends that the staff necessary for the adequate servicing of the Committee continue to be made available, and that the vacant Professional post be filled as a matter of priority;

9. Requests the Secretary-General to submit to the Council in 1995 a report on the implementation of the present resolution.

II. GENERAL ASPECTS OF THE WORK OF THE COMMITTEE

2. The transport of dangerous goods is regulated in order to prevent, as far as possible, accidents to persons or property and damage to the means of transport employed or to other goods. At the same time, regulations must be framed so as not to impede the movement of such goods, other than those too dangerous to be accepted for transport. With that exception, the aim of regulations is to make transport feasible by eliminating risks or reducing them to a minimum. It is a matter of safety no less than of facilitating transport.

3. The Committee of Experts on the Transport of Dangerous Goods and its subsidiary body are developing recommendations in the light of technical progress, the advent of new substances and materials, the exigencies of modern transport systems and, above all, the requirement to ensure the safety of people, property and the environment. The recommendations cover principles of classification and definition of classes, listing of the principal dangerous goods, packing, marking, labelling, multimodal tank transport, documentation and

consignment procedures. In addition, there are special recommendations related to particular classes of goods.

4. The recommendations aim at presenting a basic scheme of provisions that will allow national and international regulations governing the various modes of transport to develop within it in a uniform fashion and yet remain flexible enough to accommodate any special requirements that might have to be met. It is expected that Governments, intergovernmental organizations and other international organizations, when revising or developing regulations for which they are responsible, will conform to the principles laid down in these recommendations, thus contributing to world-wide harmonization in this field.

5. After 40 years, the United Nations recommendations have become the acknowledged source of technical provisions and are implemented world wide. The Committee's role is now twofold: to adapt the recommendations to technological progress, so that they remain relevant and practical; and to respond to suggestions from the modal authorities for amending the recommendations to promote total harmonization.

6. The Committee performs those functions in a sensitive context, in which pressure is growing to control the risks to the public and the environment that are associated with dangerous substances. The Committee is competent and well structured to make recommendations that strike a sensible balance between undue risks, on the one hand, and unwarranted restrictions on trade, on the other.

7. The Committee's work obviously benefits countries involved in extensive international transport of dangerous goods. Increasingly, those benefits also apply to developing countries as they build up and increase their industrial potential and find it necessary to create or further develop their legislation and technical regulations. The Committee is open to all who have an interest in and are confronted with the transport of dangerous goods.

III. WORK OF THE COMMITTEE DURING THE BIENNIUM 1991-1992

8. The Committee held its seventeenth session at Geneva from 7 to 16 December 1992.

9. The following 14 States participated in the work of the Committee and of its Subcommittee as full members: Canada, China, France, Germany, India, Italy, Japan, Netherlands, Norway, Poland, Russian Federation, Sweden, United Kingdom of Great Britain and Northern Ireland and United States of America. The following States were represented by observers: Austria, Argentina, Belgium, Brazil, Finland, Islamic Republic of Iran, Kenya, Mexico, Morocco, Nigeria, Spain, Switzerland and Ukraine. The Committee welcomed the participation of an increased number of developing countries. Twenty-two specialized agencies, intergovernmental organizations, including the European Economic Community, and non-governmental organizations also participated.

10. Liaison was maintained with the regulatory authorities responsible for individual modes of transport, namely the International Civil Aviation Organization (ICAO), the International Maritime Organization (IMO) and the Central Office of International Railway Transport (OCTI).

11. The Committee paid special attention to coordination of its own activities with those of other international organizations whose activities impinge on the field of transport of dangerous goods. Liaison was established with the secretariats of the International Labour Organisation (ILO), the World Health Organization (WHO) and the United Nations Environment Programme (UNEP) to ensure that their work would complement, rather than duplicate or clash with, existing agreements and instruments on safe transport of dangerous goods.

A. Work of the Subcommittee of Experts on the Transport of Dangerous Goods

12. The Subcommittee of Experts on the Transport of Dangerous Goods meets once or twice a year, alternately, and prepares recommendations for endorsement by the Committee. More specifically it:

(a) Recommends and defines groupings or classifications of dangerous goods on the basis of the character of risk involved, as well as criteria for classification;

(b) Lists the principal dangerous goods moving in commerce and assigns each to its proper grouping or classification;

(c) Recommends marks and labels for each group or class to identify the risk graphically and without recourse to printed text;

(d) Recommends the simplest possible requirements for shipping papers covering dangerous goods and for consignment procedures in general;

(e) Recommends requirements for the safe packing of various types of goods and requirements for the construction, testing and certification of packagings and intermediate bulk containers, having regard to technological developments in packing materials;

(f) Recommends requirements for the construction and operation of multimodal tank-containers.

13. During the biennium 1991-1992, the Subcommittee discussed more specifically matters concerning Class 1 (explosives), packagings (metal drum reprocessing), definitions of solids and liquids, intermediate bulk containers, consignment procedures, criteria for corrosive substances, lithium batteries, routine listing and classification of dangerous goods, and harmonization with the IMO provisions on sea transport.

B. Outcome of the United Nations Conference on Environment and Development

14. The Committee noted that several chapters of Agenda 21, adopted by the United Nations Conference on Environment and Development (UNCED) were relevant to its work, in particular chapter 19 (Environmentally sound management of toxic chemicals, including prevention of illegal international traffic in toxic and dangerous products). One of the programme areas proposed in chapter 19 is the

harmonization of classification and labelling of chemicals, which falls within the Committee's terms of reference. The Committee therefore expressed concern about the status and functioning of a coordinating group established by the ILO/WHO/UNEP International Programme on Chemical Safety and about the development of new structures in the United Nations system that might duplicate its work in that field just when harmonization of classification and labelling of chemicals is being achieved for all modes of transport after 40 years of effort.

15. Such concerns had also been raised by the Assembly of the International Maritime Organization at its seventeenth session in resolution A.717 (17) of 6 November 1991 on coordination in matters relating to dangerous goods and hazardous substances. The Committee therefore decided to request the Economic and Social Council to invite all Governments and the international organizations concerned with the implementation of chapter 19 of Agenda 21 and participating in the development of a globally harmonized system of classification and labelling of chemicals to avoid duplication of work and to ensure that, to the greatest extent possible, the new system was drawn on, or was compatible with, the internationally well-recognized and implemented system developed by the Committee of Experts on the Transport of Dangerous Goods.

C. Meetings held during the biennium 1991-1992

16. Since the second regular session of 1991 of the Economic and Social Council, the following meetings have been held (the symbol in parentheses is that of the report of the body concerned):

(a) Subcommittee of Experts on the Transport of Dangerous Goods: fourth session, 1-12 July 1991 (ST/SG/AC.10/C.3/8); fifth session, 2-12 December 1991 (ST/SG/AC.10/C.3/10 and Add.1); sixth session, 6-17 July 1992 (ST/SG/AC.10/C.3/12 and Add.1);

(b) Committee of Experts on the Transport of Dangerous Goods: seventeenth session, 7-16 December 1992 (ST/SG/AC.10/19 and addenda).

D. Publication of the recommendations

17. The Committee noted that the seventh revised edition of the Recommendations on the Transport of Dangerous Goods 4/ had been published in English, French, Spanish and Chinese, as requested by the Economic and Social Council in resolution 1991/57. The Arabic and Russian versions had not yet been published, but priority would be given to those languages in the preparation of the eighth revised edition.

18. The Committee requested the Secretariat to publish the new and amended recommendations (eighth revised edition) in the most cost-effective manner,

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4/ United Nations publication, Sales No. E.91.VIII.2.

without delay for ensuring quicker implementation by all modes of transport, and not later than the end of 1993.

19. The recommendations should in future be issued by electronic means; the text will be stored on electronic supports and delivered to members that request it. At the same time, the secretariat is studying the possibility of creating a data bank on dangerous goods.

E. Resources

20. The Committee noted that although one additional Professional post had been allocated to the Transport Division of the Economic Commission for Europe (ECE) for servicing the Committee and the ECE Working Party on the Transport of Dangerous Goods, in response to Economic and Social Council resolutions 1981/3, 1983/7, 1985/7, 1985/9, 1986/66, 1987/54, 1989/104 and 1991/57, there was a freeze on external recruitment and the post had not yet been filled. The Committee, however, welcomed the temporary redeployment measures taken by the Executive Secretary of ECE and expressed satisfaction with the improvement in the servicing of its sessions. Nevertheless it suggested that the vacant post be filled officially as a matter of urgency to maintain the quality of service.

21. The Committee stressed the role of the secretariat in the implementation of the recommendations on the transport of dangerous goods and therefore requested that adequate funding be provided to ensure secretariat representation at appropriate meetings of international bodies to which the recommendations were directed, especially IMO and ICAO, and meetings of organizations cooperating in the process of harmonization of classification and labelling systems, as requested by UNCED in chapter 19 of Agenda 21.

F. Future work

22. The Committee agreed on the programme of work for its subsidiary body during 1993-1994 in the following areas:

(a) Rationalization of the Manual of Tests and Criteria;

(b) Matters concerning Class 1: revision of chapter 10 (Special recommendations on packing for explosives);

(c) Criteria for Division 5.1 (Criteria for classification of solid and liquid oxidizing substances);

(d) Matters concerning Class 2 (including work of the International Organization for Standardization (ISO) on standards for gas cylinders and quality assurance);

(e) Matters concerning Class 8, including test methods for determining metal corrosion;

(f) Environmentally hazardous substances;

(g) Routine listing and classification, including listing of new formulations of organic peroxides and self-reactive substances;

(h) Editorial review of chapter 3;

(i) Matters related to packagings and intermediate bulk containers;

(j) Review of chapter 12 and the multimodal tank tables;

(k) Review of chapter 15 (Dangerous goods in limited quantities);

(l) Segregation requirements for dangerous goods;

(m) Systematic list of entries (extension of appendix A);

(n) Activities of the Coordinating Group on the Harmonization of Classification and Labelling Systems of the International Programme on Chemical Safety (IPCS);

(o) Relations with other organizations.

G. Calendar of meetings for the biennium 1993-1994

23. The Committee proposed that its eighteenth session be held from 28 November to 7 December 1994. As a result of improved multimodal harmonization, the Committee decided to reduce the duration of the two Subcommittee sessions to be held in 1993 from 10 to 8 working days. The Subcommittee of Experts on the Transport of Dangerous Goods should meet three times during the biennium 1993-1994: 12-21 July 1993, 22 November-1 December 1993 and 4-15 July 1994.

H. Draft resolution on the work of the Committee

24. The Committee approved a draft resolution (ST/SG/AC.10/19/annex 9) entitled "Work of the Committee of Experts on the Transport of Dangerous Goods" for adoption by the Economic and Social Council (see para. 1 above).

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Item 4 of the provisional agenda*

COORDINATION QUESTIONS

Promotion of press freedom in the world

Note by the Secretariat

In paragraph 18 of its resolution 47/73 B of 14 December 1992, the General Assembly decided on procedural grounds to refer to the Economic and Social Council, for its consideration, resolution 4.3 adopted on 6 November 1991 by the General Conference of the United Nations Educational, Scientific and Cultural Organization 1/ and contained in the relevant note by the Secretary-General (A/SPC/46/3). The resolution, entitled "Promotion of press freedom in the world", is annexed to the present note.

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* E/1993/100.

1/ United Nations Educational, Scientific and Cultural Organization, Records of the General Conference, Twenty-seventh Session, vol I, Resolutions, sect. III.4.

Annex

PROMOTION OF PRESS FREEDOM IN THE WORLD

(26 C/Resolution 4.3)

(Original: English and French)

The General Conference,

Recalling 25 C/Resolution 104 which it adopted following examination of the draft Medium-Term Plan for 1990-1995 in regard to major programme area IV, "Communication in the service of humanity",

Noting with satisfaction the decisions taken at the 136th session of the Executive Board concerning this major programme area,

Welcoming the scope provided in this programme for activities aimed at encouraging press freedom, as well as the independence and pluralism of the private, public and other media in all regions,

Recognizing that a free, pluralistic and independent press is an essential component of any democratic society,

Considering that the Seminar on Promoting an Independent and Pluralistic African Press (29 April-3 May 1991), organized by the United Nations Educational, Scientific and Cultural Organization (UNESCO) and the United Nations in Windhoek, Namibia, acted as a catalyst in the process of encouraging press freedom, independence and pluralism in Africa,

Congratulating the Director-General and the secretariat on this initiative,

Noting with satisfaction the cooperation that developed at that meeting between UNESCO and the professional media associations,

Noting with interest the Declaration adopted by participants at the Windhoek seminar which provides a reference for the development of independent and pluralist media in Africa,

Thanking the Director-General for his action aimed at providing a positive follow-up to the recommendations made at the seminar, especially those mentioned in the annex to the Windhoek Declaration,

Invites the Director-General:

(a) To extend to other regions of the world the action taken so far in Africa and Europe to encourage press freedom and to promote the independence and pluralism of the media;

(b) To commemmorate the anniversary of the Windhoek Declaration adopted on 3 May 1991;

(c) To transmit to the General Assembly of the United Nations the wish expressed by the States members of UNESCO to have 3 May declared "International Press Freedom Day";

(d) To examine with the Secretary-General of the United Nations ways and means of issuing a joint report on the progress of press freedom in the world to mark this day.